

NWC 2062P

THE UNITED STATES NAVAL WAR COLLEGE

JOINT MILITARY OPERATIONS DEPARTMENT



OPERATIONS PAPER: GUIDANCE FOR STUDENTS

FEBRUARY 2005

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28 February 2005

**MEMORANDUM FOR STUDENTS IN THE JOINT MILITARY
OPERATIONS COURSE, SPRING 2005**

From: Chairman, Joint Military Operations Department

Subj: JOINT MILITARY OPERATIONS (JMO) COURSE PAPER

1. The Naval War College was founded to enable military officers to study their craft, reflect on their profession, and conduct independent research. The Operations Paper provides an excellent opportunity to adhere to this principle. The JMO curriculum reserves some 25 percent of available class periods as "student preparation time" for research, analysis, and writing.

2. In keeping with the above founding principle, we intend to "further the literature" regarding military operations. Operations Papers written by your talented peers have achieved direct, positive impacts in the operational art, operational level of war, and other subjects of critical concern to naval and joint force commanders. Because outstanding Operations Papers compete for, and win, prizes at graduation, this NWC 2062 reading highlights these awards and emphasizes how to submit your paper for award competition. In addition, this reading informs you about multiple avenues to have your paper published. I strongly encourage you to consider publication, and share your research and writing with others in our profession.

3. Getting started is the first hurdle. Some may find that identifying and evaluating a potential paper topic is very challenging. Because topic selection comes early in the JMO course, we hope this reading provides sufficient guidance to enable effective and efficient use of your time and effort. While NWC 2062 presents a wide variety of relevant, appropriate topics for your consideration, please do not be constrained by them. We encourage you to develop your own, keeping in mind that final topic approval rests with your seminar moderators.

4. Your seminar moderators will review with you the specific requirements of the Operations Paper. We make it our business to see that you are successful. Please keep us informed on your progress, as well as any difficulties encountered as you draft and finalize your paper. I wish you the best in this endeavor, and hope you find it challenging and rewarding.

ANTHONY J. RUOTI
Captain USN

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ENCLOSURE (1)

NAVAL WAR COLLEGE OPERATIONS PAPER PROPOSAL REQUIREMENTS

PAPER PROPOSAL. The proposal process helps students do the following: select an appropriate topic; identify how the topic will be approached; craft a thesis statement from the topic; evaluate the relevance of the research; describe the methodology of the research; create an outline; and begin to build a bibliography. The proposal process has two parts: first is the submission of the Operations Paper Proposal as outlined here; second is a tutorial with the faculty moderators.

A proposal consists of a proposal summary (see pages 9 & 10), a short outline of the proposed approach, and a preliminary bibliography. The proposal shall be submitted on the date specified in the syllabus schedule.

Shortly after submission of the paper proposal, the student and moderators will meet in a tutorial to discuss the proposal.

The tutorial is a meeting where the student and moderators agree upon an acceptable course of action by the student. During the tutorial, the moderators will help the student focus on the research and writing effort, guide the student with respect to analytical techniques, suggest additional research sources, and refer the student to resident experts if necessary. Finally, students should be prepared to answer the questions on page 11 of this reading at the tutorial session.

The proposal process culminates with an accepted proposal. This means that both student and moderators have an accurate appreciation for the depth of research, extent of analysis, and quality of writing expected of the student. *If a student desires to change a proposal after it has been approved, the change must be approved by the student's moderators.*

PAPER LENGTH & FORMAT. As specified in the JMO Syllabus, the paper should be between 14 and 17 pages of text. This underlined distinction means that entities such as abstract, table of contents, end notes, bibliography, charts, maps, tables, figures, etc., do not count against the amount of space available for text. Examples: a student has four pages of charts, maps, and tables integrated into the body of the paper; the total page count measured from the first page of the Introduction to the last page of the Conclusion (prior to end-notes page) should be between 18 and 21 pages. Conversely, a student whose paper has three pages of charts, maps, and tables in the paper body and a page count of 15 (measured from the first page of the Intro to the last page of the Conclusion) has only 12 pages of text, which is too "light." The following format parameters pertain (see the *NWC Style Manual and Classification Guide*, page 4):

1. Margins: one-inch top, bottom, and right; left margin is 1.25 inches.
2. Justification: LEFT except when centering is necessary. Hyphenation between lines on the same page (but not between pages) is acceptable. Use Widow-Orphan protection.
3. Double-space all text except as noted on page 4 of the *Style Manual*.
4. Use font size 12 and a standard “TrueType” font such as Times New Roman, CG Times, and Century Schoolbook. Courier is also an acceptable font, but be aware that it yields approximately 50 fewer words per page than do the other fonts.

Note: there is no minimum or maximum number of words established for the paper. This is deliberate because of the significant differences among fonts and word-processing programs (each counts words differently).

PAPER COVER PAGE. Please use the format attached to this enclosure instead of the example in the *Style Manual*.

Enclosure (1) attachments:

- Paper Proposal format
- Representative Tutorial Questions
- Paper Advisors
- How to Develop a Paper Thesis
- Example of a Generic Outline
- Preliminary Bibliography
- Cover Page Format

OPERATIONS PAPER PROPOSAL FORMAT

LAST NAME	FIRST NAME	M. I.	SEMINAR #
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I. I intend to investigate the following topic: _____

II. A Short Working Title for my paper is:

III. The thesis of my paper is:

IV. Approach to the topic. Based on my initial research of this topical area, my approach will be as follows:

V. Relevance. My thesis passes the "so what" test as follows:

VI. Methodology that I intend to employ (document research, interviews, data analysis, gaming, etc.):

VII. An initial outline and preliminary bibliography are attached.

VIII. Signatures:

Student	Date
---------	------

Faculty Moderator	Date
-------------------	------

Faculty Moderator	Date
-------------------	------

Faculty Advisor (Optional, but strongly recommended)	Date
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IX. Moderator Notes and Comments:

REPRESENTATIVE TUTORIAL QUESTIONS

1. Does the topic satisfy the course requirements? Have an appropriate research question and thesis statement been derived from the topic?
2. Will the paper be written at the appropriate level? The topic and research question should be focused at the theater-strategic or operational level of warfare.
3. Are the approach and methodology acceptable? Suggestions for improvement?
4. Properly executed, will the effort be relevant?
5. Does the paper's outline indicate a well thought-out approach? Does it appear that conclusions will flow logically from the analysis presented?
6. Does the student need help finding an advisor?

PAPER ADVISORS

The Naval War College faculty comprises civilian and military personnel with wide ranges of experience and expertise. Students who desire advisors for their papers (an advisor is not required but **strongly** recommended) should take advantage of faculty assistance. The recommended first step in determining “who knows what about what” is to review the faculty biographies in the JMO Syllabus. If that does not suggest a specific faculty advisor, your JMO seminar moderators can point you in the correct direction. As a practical matter, however, JMO faculty members can advise on a wide range of paper topics, regardless of whether they have "subject matter expertise" in those topics. The principal functions of the JMO faculty paper advisor are: to help the student move from topic to research question to thesis statement; to develop a manageable, focused outline; to conduct effective & efficient research; and to craft a paper that is logical, well-reasoned, clear, and concise. If subject matter *expertise* becomes an absolute necessity, the advisor can assist the student in getting a subject matter expert to do a "critical read" of the paper draft.

HOW TO DEVELOP A JMO PAPER THESIS

1. Start by selecting a **TOPIC**. The best paper topics stem from professional **OBSERVATIONS** that students make about the world around them.

Example: one might observe that the military doctrines of many countries apparently subscribe to the same Principles of War, with one major exception – some military doctrines, including that of the United States, do not include Morale as a Principle. This observation stimulates a number of questions. Is the observation generally true? Why do

certain countries include Morale? Why do other countries not include Morale? Is Morale innately compatible / incompatible with established Principles of War? And many more.

Once a topic has been tentatively selected, evaluate it in terms of three criteria:

Is it relevant? Specifically, do the answers to the questions raised by the observation pass the “so what?” test? Are they important to one’s profession, or simply informational in nature?

Can the topic be researched? Specifically, are resources available to the researcher that may be employed to gain knowledge about the topic?

Is the topic at a level (theater-strategic or operational) suitable to JMO requirements?

2. The next step is to frame the **RESEARCH QUESTION**. A succinct, properly focused research question makes an excellent paper **Working Title** and is the key to successful research. Research must be organized around the research question. Thus, the research question must be crafted carefully to limit deliberately the research scope and avoid wasted effort. Also, the research question must require a substantive answer (“Why did Russia lose the Crimean War?”), not a simple yes/no answer (“Did Russia lose the Crimean War?”).

Example. Following from paragraph 1 above, the observed relationship in doctrine between the Principles of War and Morale suggests many potential research questions. However, keeping in mind the purpose of the JMO Paper, a student would craft a research question that is relevant, researchable, suitable, and of greatest potential utility to the U.S. military profession: “**Should U.S. Military Doctrine Include ‘Morale’ as a Principle of War?**”

3. The third step is to establish the paper’s **THESIS** (def: “A position or proposition that a person advances and offers to maintain by argument”). Simply stated, the thesis is what the student/researcher believes is the correct answer to the research question (“Russia lost the Crimean War because its senior military officers repeatedly ignored key tenets of operational art.”). This belief is based on preliminary investigation appropriate to the topic and research question, but before substantive research & analysis are accomplished. As a result, it is entirely possible to learn, after substantive research & analysis, that one’s original thesis was off the mark. There are two acceptable ways to address this eventuality. The first is to provide a forthright paper conclusion that summarizes the basis for the original thesis and why it is now considered to be off base or incorrect. Or, one may change the original thesis to reflect what one learned through substantive research & analysis, ensuring that the main body of the paper is modified as necessary to support the revised thesis. Either method is completely legitimate and ethical.

Example. Again using the Principles of War / Morale scenario, an acceptable thesis statement would be: “Morale should be added to the Principles of War delineated in U.S.

military doctrine.” Please note that this statement answers the research question in a simple, succinct fashion, and uses terms (Morale, Add, Principles of War, U.S. military doctrine) that may be easily defined (“operationalized” in academic jargon) to maximize reader comprehension. Also, this thesis statement is substantive (important to the profession), contestable (needs to be explained because it challenges established thinking or ventures into uncharted territory), and specific (enables the reader to identify the key concepts that will be developed in the paper).

4. Final Notes. The JMO Paper should have three main parts: introduction, main body, and a conclusion that summarizes thesis & findings, draws conclusions, and makes recommendations (contemporary topic) or lessons learned (historical case study). A clear, concise, coherent introduction is the key to a successful paper: it must introduce the topic, orient the reader to the “what & why” of the effort, and foreshadow the paper’s conclusions. In this regard, the Introduction should state explicitly the author’s thesis and explain how the thesis will be supported in the paper’s main body. Also, **two cautionary criteria are provided for historical case studies**. First, do not restate in your own words work that has already been done; i.e., do not do a summary or book report on your research. Second, all historical case study analysis must result in conclusions and lessons learned that are guided by the following question: What are the implications for the U.S. military and its activities in the 21st century.

References:

Naval War College Writing Guide. Newport, RI: August 2000.

Booth, Wayne C., Gregory G. Colomb, and Joseph M. Williams. *The Craft of Research*. Chicago: University of Chicago Press, 1995.

EXAMPLE OF A GENERIC OUTLINE

*Note: every topic is different; the generic outline below is intended merely as a point of departure for adaptation to your specific subject. Some papers may require a separate **Background** section; if so, it usually works best right after the introduction; should be kept as short as possible.*

I. Introduction [usually 1-2 pages max.; short is best]:

A. Nature of the problem/issue upon which you are focusing:

-- Make sure you focus at the Operational level; look at the issue from the Combatant Commander's perspective and articulate that perspective throughout the paper.

B. Your thesis on this problem/issue:

-- Articulating it in the form of a research question is useful; for example: Are "no-fly zones" ineffective unless part of an overall operational design?

C. Impact -- why does it matter? (If your thesis is correct, has the world changed and, if so, how?).

D. How do you plan to demonstrate your thesis (what do you plan to analyze)?
-- If there are areas you cannot possibly cover in 14-17 pages, explain this to your reader; make it clear that your effort is a starting point for further study. If you are using a single case, tell the reader it is an "illustrative example" (so the reader will not think you believe a single case "proves" it will always be so).

II. Analysis [5-6 pages; meat of paper; where you use your research]:

--This can be analysis of a past situation that illustrates your point, a series of problems or recurrence of problems that you can analyze to make your case; methodical, logical analysis of a body of information to demonstrate the issue is as you claim.

--Must address counterarguments which have been (or could be) posed to your thesis, either refuting them or showing how they can be mitigated.

III. How do we solve this problem?

-- What do you recommend? This needs to be done in some detail, the more concrete your recommendations the better. Should be at least 5-6 pages.

-- Do not just tell the reader the old situation is bad and should be changed; tell the reader how it should be changed in detail. What criteria should the operational commander use, for example, to determine if he has it right?

-- This is where we get the writer's ideas and original thought; critical for a good paper.

IV. Conclusion: Synthesize and summarize what you have demonstrated, how and why it matters. Short, 1-2 pages max.

THE PRELIMINARY BIBLIOGRAPHY

This bibliography is attached the paper proposal and reflects initial research concerning the topic and thesis. It need not number more than ten sources, but they should be important sources the author intends to employ for research and analysis. An example of such sources for the topic *Terrorism* would be:

Alexander, Yonah and Michael S. Swetnam. Usama Bin Laden's Al-Qaida: Profile of a Terrorist Network. Ardsley, NY: Transnational, 2001.

Blane, John V. Cyberwarfare: Terror at a Click. Huntington, NY: Novinka Books, 2001.

Bodansky, Yossef. Bin Laden: The Man Who Declared War on America. Rocklin, CA: Forum, 2001.

- Brake, Jeffery D. Terrorism and the Military's Role in Domestic Crisis Management: Background and Issues for Congress. Washington, DC: Congressional Research Service, April 19, 2001.
- Campbell, Kurt M. and Michele A. Flournoy. To Prevail: An American Strategy for the Campaign Against Terrorism. Washington, DC: CSIS, 2001.
- Coalition Information Centers (U.S. and Great Britain). The Global War on Terrorism: The First 100 Days. Washington, DC: The Centers, 2001.
- Cordesman, Anthony H. Terrorism, Asymmetric Warfare, and Weapons of Mass Destruction: Defending the U.S. Homeland. Westport, CT: Praeger, 2002.
- Davis, Lynn E. Organizing for Homeland Security. Santa Monica, CA: Rand, 2002.
- Echevarria, Antulio J. "Homeland Security Issues: A Strategic Perspective." In Defeating Terrorism: Strategic Issue Analyses, 31-36. ed. John R. Martin. Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 2002.
- Gay, Kathlyn. Silent Death: The Threat of Chemical and Biological Terrorism. Brookfield, CT: Twenty-First Century Books, 2001.

(COVER PAGE FORMAT)

**NAVAL WAR COLLEGE
Newport, R.I.**

TITLE OF PAPER

by

Name

Rank and Service

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: _____

[Date] [Month] [Year]
(Date of submission of paper)

If distribution of paper is limited in accordance with the DON ISPR, show Distribution Statement here.

ENCLOSURE (2)

OPERATIONS PAPER TOPICS

This enclosure is a primary resource in your search for a suitable paper topic from which to derive a research question and thesis. It is not a list of "approved" topics but a compilation of potential interest areas. In particular, **Part 1** includes topics from multiple sources; many of these topics require refinement and modification in order to be suitable for a JMO paper. We provide such topics exactly as stated by requestors so that you will have an authentic point-of-departure; you still must transform the topic into a single, focused research question and thesis statement that meet JMO Paper guideline

Part 1 lists research topics that various commands and organizations have requested be pursued by Naval War College (NWC) resident students. **Part 2** itemizes topical areas dealing with Operational Art, the operational level of war, and historical case studies. **Part 3** provides a selected list of quality papers and essays, written by students at the various U.S. military colleges, to give you an idea of the range of potential Operations Paper topics. Inclusion of a paper on this list does not imply that the paper was a JMO course product, nor that it necessarily meets JMO Paper criteria; its inclusion is intended as a possible area of inquiry.

You do not have a great deal of time at the beginning of the JMO Course to decide upon an Operations Paper topic. The JMO Course Syllabus, your faculty moderators, and this reading are the three primary sources to launch your search. In particular, you will notice that the topics listed in Part 1 are focused on near-, mid-, and long-term challenges that require innovative thinking, analysis, and decision-making. Given the significant time and effort you will invest in your Operations Paper, you are encouraged to apply your expertise and innovative imagination to one of these challenging topics.

Part 1: Operational and Academic Research Topics

Various commands, organizations, and agencies provide issues of contemporary concern requiring thoughtful research, analysis, and writing. In the search for a suitable Operations Paper topic, students should investigate this list first because of the multiple benefits to be realized from well-written papers that address these issues. Please also note that certain foundational concepts such as Information Operations, Network Centricity, and Transformation apply across the spectrum of topics and thus are not listed as specific categories. Again, keep in mind that you may need to adapt a topic of interest to make it appropriate for a JMO paper. Other topic sources are as follows:

Joint Topics Database. The Joint Professional Military Education (JPME) Prospective Research Topic Database (PRTD) provides research topics for students attending advanced military study programs and intermediate and senior service schools. The Joint Staff, J-7, solicits research topics from Combatant Commands, Supporting Commands, the Services, the Joint Staff, and Service Centers for Lessons Learned annually. These organizations submit research topics that pertain to current joint issues requiring innovative research and solutions. Database is available on "dot mil" computers at the Joint Doctrine, Education and Training Community Electronic Information System (JDEIS) Web Portal:

<http://jdeis.cornerstoneindustry.com/jdeis/eduResearch/users/intro.jsp>

Homeland Security / Defense (HLS-D).

<http://www.nwc.navy.mil/library/3Publications/NWCLibraryPublications/LibNotes/LibraryNotes.htm>

<http://www.au.af.mil/au/aui/bibs/bib97.htm>

Points of contact are identified where available.

Air Operations:

Evaluation of Air Power Effectiveness against Combat Units. What is the effectiveness of air power at the operational (theater) level of combat considering actual military conflicts, analytical studies, military experience, etc.?

Assured Access.

Access is a continuum that nominally ranges from presence to forces positioned to project power / conduct combat operations. Under what temporal, spatial, or operational conditions / parameters can we say we have achieved access at various points along the continuum? What measures of performance / effectiveness would we use to evaluate our access assurance; or, perhaps more importantly, how would we use those measures in the operational planning phase?

What sort of technological, behavioral, and tactical adaptive schema would be necessary to ensure that U.S. and allied forces prevail at any point along the access continuum? Consider that the assured access concept is predicated on conducting warfare (in multiple warfare areas, i.e., USW, SUW, AW, TBMD, etc.) along a wide geographic front with a great deal of simultaneity among the warfare areas.

At some point, a certain level of access manages risk for a commander and his subordinates. Access may be built around a combination of circumstances in this not-all-inclusive list: specific time or geography, situation, the importance of a mission or task, safety, political pressure, ROE, counter-fire, covertness, and establishing information and knowledge advantage. Additionally, there may be certain scenarios, conditions and timelines in which one of the following three ways of achieving access might take precedence over the other two:

- Developing and sustaining Blue access
- Denying Red access
- Giving up Blue access to conduct power projection

In writing this paper, consider the specific operational concerns a JTF commander would use to determine the appropriate course of action. Political elements are inherent in any scenario, so the paper should identify discrete political assumptions on which the writer bases his/her arguments.

Assured Access – Time for a Theater ASW Commander? The need to improve Navy's core competency of Assured Access in the littoral environment, and in particular its ASW ability, drives us toward investigating new Command and Control relationships. The concept of a Theater ASW Commander should be analyzed as one such approach. The Theater ASW Commander would be fully responsible for all ASW activities in his theater throughout the spectrum of war. As such he would control all theater ASW assets and information systems. Because of our increased connectivity, such a concept might include a decentralized C2 structure that relies on strong commander's guidance and command by negation. The potential advantages of this approach might be greater span of control enhancing network centric operations, more effectiveness and efficiency in the use of ASW sensors and weapons, and stronger unity of command in a multiple strike group / multiple enemy submarine environment.

Battlespace Awareness:

Targeting. Do the U.S. national targeting agencies (NGA, CMSA, etc.) fully support the operational commander's targeting and battle-damage assessment (BDA) requirements? As the number of GPS-guided weapons increases, what will be the impact on these agencies? What needs to be changed and how?

Blue-On-Blue Engagements. Will the probability of "friendly fire" incidents decrease or increase as the result of increasingly more sophisticated and rapid C4 processes and systems? Pragmatically justify your answer.

Close Air Support (CAS): Are current CAS paradigms sufficient for modern warfare, or is there a better framework for providing airpower to support ground forces that close with the enemy? Nuances of this topic include whether transformation of the basic Army maneuver element might force transformation of fire support structures, whether precision engagement enables a more flexible "CAS on demand," or if the Air Tasking Order is an appropriate process for tasking CAS missions. POC is LTCOL Dutch Huizenga, USAF, C-410, 841-6476.

Command and Control (C2):

Promising alternative concepts of Command, Command relations, and Command & Control processes may be enabled by Network Centric Warfare (NCW). Given these promising alternatives, what will the commander of the future command: forces, information services, key processes, or some mix of these?

Analyze the potential for NetCentric Operations & Warfare to compress or eliminate the operational level of war. What are the C2 policy implications of such compression / elimination for the Combatant Commanders and National Command? In this context, who should manage the grids and output systems.

Staff Organization for Optimum C2. If Full Spectrum Dominance in a netcentric environment demands an ability to make timely and informed decisions on the allocation of resources and the conduct of operations, will the current J1 through J8 staff organization provide the optimum support to the joint force commander? For example, a single precision engagement would be ops-focused (J3), would require planning (J5) for the use of offensive information warfare (J3) and munitions based on availability (J4), against the most important targets (J2), and rely heavily on information systems (J6). Is there a better way to organize to leverage fully the new operational concepts of JV 2020?

Command and Control in a Virtual Environment. Increased battlespace awareness and refined decision-making processes provide commanders at the operational and tactical levels with significant opportunity to operate inside the opponent's decision cycle. Additionally, at all levels, near real-time connectivity, as well as potentially more decentralized C2, will allow rapid exploitation of short-lived opportunities presented by opponents. How does this impact the principle of centralized command and decentralized execution? Is this paradigm outmoded? Do we want or need the command and decision authority pushed down to the tactical unit level? Alternatively, will exceptionally talented & capable systems invite higher authority micro-management of tactical actions? How might such possible "decision up-creep" be mitigated? POC is Professor Pat Sweeney, C-424.

Identify and analyze the measures of effectiveness that should be employed by a commander conducting information-based warfare.

Computer Network Defense (CND)

How should the United States organize the intelligence effort for CND? Specifically, what are the general intelligence requirements? Who in the Intelligence Community should be in charge and why? Who should collect what information and how? What products are required (intel estimates, studies, databases, etc.)? Who should produce what product? How/where should the intel be stored (GCCS, JWICS, etc.)? How should the intel be disseminated?

CND and Homeland Security. How should the DoD share critical, CND-related intelligence with other government departments, industry, academia, allies, and coalition partners?

Drawing from the results of cyberspace attacks on U.S. military computer systems during the past 24 months, identify and analyze the most important lessons learned in the context of protecting these systems.

The 11 September 2001 terrorist attack on the Pentagon visited significant damage on DoD Information Technology (IT) systems. Identify and analyze the most important capabilities reduced or destroyed by the attack, draw conclusions, and make recommendations concerning how to preserve continuity of IT operations against future attacks.

Doctrine:

Effects-Based Targeting. Targeting is, "The process to detect, select, and prioritize targets; match the appropriate action; and assess the resulting effects based on the commander's objective, guidance, and intent." Research historical cases & effects that have caused nations and their militaries to capitulate. From these case studies, did the effects of the inputs yield results that effectively contributed toward meeting the objectives? Were the "effects" strategic, operational, or tactical? Successful? Why?

Joint Pub 1-02 defines "Functional Component Command" as, "A command normally, but not necessarily, composed of forces of two or more Military Departments which may be established across the range of military operations to perform particular operational missions that may be of short duration or may extend over a period of time." Joint Pub 1-02 also provides a definition for a Joint Force Maritime Component Commander (JFMCC): "The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of maritime forces and assets, planning and coordinating maritime operations, or accomplishing such operational missions as may be assigned. The joint force maritime component commander is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The joint force maritime component commander will normally be the commander with the preponderance of maritime forces and the requisite command and control capabilities." Joint Pub 0-2, JP 3-0, JP 5-00.2, and a limited number of other Joint Pubs provide little

granularity to the organization, training, or conduct of joint maritime operations. Doctrine is being developed to address the authority, command and support relationships, organization, responsibilities, and functions of a JFACC, JFLCC, JSOTF/JFSOCC, but with little reference to JFMCC. The issues are -- What "piece of the battle space or functional responsibility" should the JFMCC be tasked to perform? What authority? What is the command and support relationship with the JFC, other components, and subordinate forces? What are JFMCC responsibilities / functions? How should the JFMCC Staff be organized?

The Land Attack Warfare Concept. Does the Navy need a separate warfare commander to control the growing arsenal of long-range surface fires (e.g., extended range guided munitions [ERGM], land attack standard missile [LASM], tactical Tomahawks [TACTOM]), or is the concept of a single Strike Warfare Commander still valid? During Joint Operations, who should control allocation of these weapons?

The network-centric rule set – what is it and how does it apply? The “Rule Set” is a critical component for achieving speed of command. Define what is meant by “rule set” and evaluate its influence at the tactical, operational, and strategic levels of war.

Targeting. What should be the relationship between the operational commander and his component commanders, especially the JFACC, to achieve optimum effective targeting? Should joint doctrine be changed? If so, how?

Air Power Theory and *Joint Visions*. If the revolution in military affairs is occurring as advertised in *Joint Vision 2020* and *The Concept for Future Joint Operations*, is it time to rethink air power theory and doctrine? What compelling capability does air power, as applied in the Joint Vision operational concepts (precision engagement, full-dimensional protection, focused logistics, and dominant maneuver), offer the Joint Force Commander across the range of military operations?

Evaluate the process by which U.S. Navy doctrine currently is developed and implemented. Recommend an alternative methodology to achieve a process that is faster, more effective, more efficient, and keeps pace with accelerating technological and operational innovation.

Dominant Maneuver:

Relationship of Dominant Maneuver to Precision Engagement. If dominant maneuver and precision engagement both depend on decisive control of the breadth, depth, and height of the battlespace, and both focus on a desired effect or accomplishment of an objective, what is the relationship between these two operational concepts? Can one exist without the other? Assuming they cannot, determine if conceptually they are simply two aspects of a single operational concept.

Effects-Based Operations (EBO):

A Scheme of Effects offers potential advantages over campaign plans and operational concepts developed over the last two decades. Schemes of Effects consider “why” Blue wants to do something, “what” Blue will do, and “how” Blue will do it, without telling subordinates “how to suck eggs.” Additionally, it offers significant advantages in risk management, precision application of kinetic and non-kinetic effects, and it builds parallel operations rather than linear, sequential ones. One recommended approach to this paper: select a scenario, geography, timeline, and objectives, and build a case for using a Scheme of Effects by demonstrating its effectiveness.

Expeditionary Warfare (U.S. Naval): Each of the following topics is intended to be a stimulus for the development of advanced Expeditionary Warfare concepts to support concept-based experimentation, requirements, and programs. Unless otherwise noted, POC is COL W.J. Hartig, USMC, C-410, 841-6471.

What are the implications of advanced expeditionary warfare operational concepts for the development of Navy amphibious warfare as reflected in the Navy’s Amphibious Warfare Master Plan?

Evaluate the Navy and Marine Corps operational concepts in terms of their implications (missions, scenarios, and target sets) for naval fires.

The concept paper, “Seabased Logistics: a 21st Century Warfighting Concept,” presents significant, new challenges to U.S. naval forces afloat. In view of the threats to naval forces operating in the littorals, does this concept provide a sufficiently balanced perspective from which we can build doctrine?

Develop and defend the optimal “naval operating force” (Navy + Marine Corps) command & control (C2) concept for the first decade of the 21st century. This concept must (1) resolve currently unmediated issues between the two Services; (2) take full innovative advantage of advancing technology; and (3) meet the basic requirements of a notional joint force commander who expects to be able to use this “naval force” as both single entity and enabling core of a larger joint force.

USN - USMC Command relationships during Amphibious Operations. Research the exercises and operations of the past three years and identify the types of command relationships that were utilized. Specifically, regardless of the formal command relationship, what was the *de facto* command relationship used? How were different command relationships phased throughout an operation or exercise? What effect did different command relationships have on the outcome of an operation or exercise? What changes should be made to current Doctrine, if any, to support MOOTW? OMFTS? The next major wartime amphibious operation?

ESG Command. With the advent of Expeditionary Strike Groups, a reexamination of the command structure is required. Should the commander be USN or USMC? What

are the pros & cons of each? How should the commander's staff be structured? What are the operational and legal issues that must be addressed – and how? POC is Professor Jim Perkins, C-408, 841-6475.

Expeditionary Warfare (Joint):

In the last decade, as the U.S. Military Services have re-engineered themselves for the challenges of the post-Cold War world, they have emphasized increasingly their Service expeditionary capabilities. Is expeditionary warfare sufficiently unique to require examination, definition, and doctrine? While the term “expeditionary” has garnered universal use, it has different meanings to different cultures. Should joint force commanders apply a common usage to the term and define its chief characteristics?

What are the essential elements of modern, joint expeditionary warfare? Are there distinguishing capabilities that should be built into “joint expeditionary forces?” Are the core competencies that underpin an expeditionary capability identified and understood? Are these “core competencies” embraced as joint doctrine?

Expeditionary operations create unique strains on logistics, command & control, operational protection, integrated fires, and synchronized maneuver. Are the joint force commanders, their staffs, and the supporting doctrine organized and prepared to meet these challenges? Do joint force commanders need to treat the operational functions differently in expeditionary operations and campaigns?

Full Dimension Protection:

Naval Force Protection. What are the principal threats facing U.S. Navy surface vessels in the first decade of the 21st century? Apply network-centric capabilities to the threat assessment and determine what doctrinal actions may be required to optimize protection.

What should be the optimal command and control (C2) concept for U.S. joint theater ballistic missile defense forces?

Command of Full-Dimension Protection Forces. Presently, a Joint Rear Area Commander is in charge of protecting the rear area, an Area Air Defense Commander is responsible for air defense, and a Naval Coastal Warfare Commander is responsible for the defense of coastal waters. Should there be a single commander, reporting to the JTF Commander, responsible for Full-Dimension Protection?

U.S. Military Participation in the Defense of CONUS. Does Full-Dimension Protection apply to defending CONUS from enemy actions such as terrorism? If so, how can the U.S. military help Federal authorities defend key potential targets in CONUS?

Naval Coastal Warfare in the 21st Century. Should U.S. doctrine change? How will advancing technologies and Network Centric Warfare influence this critical force protection mission?

Homeland Security / Defense. POCs are Captain Mike Critz, USN, C-217, and Captain Ivan Luke, USCG, SP-214.

Develop a military operational concept for homeland security. What should be the command & control structure? What are the key issues relevant to the homeland security mission and how should they be resolved?

Develop the maritime element of a military operational concept for homeland security. What should be the command & control structure? What are the key issues relevant to the homeland security maritime mission & how should they be resolved?

Human Abilities and Behavior:

The Mythology of the U.S. Military as an Isolated Warfighter. The apparent politicization of the military (in recent small scale contingencies [SSCs] such as Kosovo and MOOTW in general) appears to be at odds with the myth of the military ethos – “give me the task and I’ll get it done; just stay out of my way.” In fact, some senior officers (active & retired) have blamed politicians and senior military officers for meddling in their mission planning and execution, arguing that military effectiveness was sub-optimized as a result of micro-management by national strategic leaders. What is the historical reality of such micro-management? Is the military naïve to discount the political factor? What does this bode for future military leaders, as well as training and education?

The Stock Market as a Historical Foundation for Network-Centric Warfare. The increase in communication speed from the post to telephone to ticker tape to Internet has had profound effects on trading methods, patterns, strategies, and human interactive decision-making. How did the stock market integrate and manage such critical advances? Given the vast amounts of near-real time information now available, what influence do the effects (volatility, lack of redundancy, information volume) portend for NCW?

The Impact of Information Superiority Technologies on the Development of 2010 U.S. Military Leaders. If emerging technological advances result in a 2010 information superiority capability that will provide future leaders near real-time total dominant battlespace knowledge, then leaders at all levels will be able to respond immediately to the Joint Force Commander’s operational intent. What changes will be required in the ways of educating future leaders? What are anticipated changes and processes to develop leaders who can operate and execute the art of command using the advantages of information age technologies? Will the art of command dramatically change? What are the possible impacts upon the existing theories of decision-making?

Examine the ethical challenges faced by a joint force commander in the 21st century. Are they the same as in the past or are there new compromising influences? Prof Sweeney C424

Innovation Challenges:

Develop an operational warfighting concept for a U.S. National Fleet comprising an integrated Navy and Coast Guard.

Develop a U.S. Naval Service operational concept for the 21st century that: maximizes agility, flexibility, and speed; effectively integrates Navy and Marine Corps concerns and considerations; is capable of “plugging in” to the CJCS *Concept for Future Joint Operations*; and makes full use of advancing technology.

Network-Centric Warfare and Leverage Management. NCW appears to create a leverage challenge. By virtue of the information lever, and a constrained budget, is the U.S. military creating its own vulnerabilities? Is it necessary or defensible? Visualize an actual lever situation: a box on a board with a fulcrum underneath for leveraging the force to move the box. Is the weak point the board? The fulcrum? The arc needed to gain leverage? Explore in terms of NCW. What are the risks and mitigating proposals?

A new attribute of war fighting is that the value of speed is increasing; those factors, forces, sectors, etc. which slow down the planning and execution process must be “speed injected” or eliminated. Identify and recommend specific application of new measures of effectiveness (MOEs) based on the increasing value of speed in warfare.

Information Superiority and its Effects on the Planning and Execution of Operations. The *Concept for Future Joint Operations* describes a variety of operational environments that, by their diverse natures, must allow commanders to choose an operational framework—that is, how they will array joint forces and apply armed force to accomplish mission objectives. Unlike the relatively fixed framework of the past, contemporary & future warfighting will vary from linear to non-linear, and will provide for greater separation of units and forces in both time and space. Concentrating effects, not necessarily forces, is the aim of mass. How will this change conventional notions about command relationships, location and function of “staffs,” planning and executing operations, and the fundamental exercise of command?

Given reasonable practical success with the Civil Military Operations Center (CMOC) concept during the past ten years, what should be the next logical conceptual step, using enabling technological advances, to improve the civil-military coordination process and outputs?

The progeny of TPFDD. Units were deployed to OIF without using the traditional TPFDD. Review this new ‘process’ and comment on its pros and cons versus the prior system. Which system works better and which should be used for future ops; or should a new system be designed? POC is Prof. Jim Perkins, C-408, 841-6475.

Experimentation: how can we accelerate the “art of the possible”? Analyze the processes by which experimental concepts and technologies are proposed to / acted upon by the Joint Staff / USJFCOM and the individual Services (in particular, Navy). Identify the obstacles that hamper the effectiveness of this process. Propose a methodology for eliminating obstacles and achieving an effective, timely experimentation process.

Air-Land Battle is a model of transformation that seemed to work, but there is no authoritative source on how it was accomplished. Analyze the relevant sources and write a paper that offers *ALB* as a model for Joint and Service transformation in the 21st century. POC for relevant materials is Mr. Mark Werner, NWDC, Sims Hall, SE-203.

How should we crew & fight our ships? Combined crews - Sailors and Merchant Mariners – aboard logistics ships (and one fleet flagship) suggests improved shipboard operations at reduced costs. Would this concept also work for combatants – e.g., LCS and DD (X)? What are the operational, cultural, and other challenges, and how might they be overcome? POC is Professor Jim Perkins, C-408, 841-6475.

Goldwater-Nichols, the Sequel. The 1986 G-N legislation is the foundation of U.S. “jointness,” but arguably did not go far enough. What features should be included in new legislation? How should they be implemented and what obstacles should be anticipated? POC is Professor Jim Perkins, C-408, 841-6475.

Intelligence, Surveillance, and Reconnaissance (ISR): POC is CDR Alan Wall, USN, SE-120, 841-6486.

In the realm of operational intelligence, define the requirements, criteria, and metrics for your Service’s Intelligence Professionals in the first quarter of the 21st Century; include comparison and contrast with IP requirements for the latter part (post-Cold War) of the 20th century.

A variety of Unmanned Aerial, Surface, and Sub-Surface Vehicles are changing the way that the U.S. Military Services conduct ISR. How may the operational-level commander best employ the unique capabilities of these platforms?

U.S. Strategic Command and U.S. Joint Forces Command are exploring the concept of Intelligence Campaign Planning. Examine this concept, determining its strengths and weaknesses, and how to integrate it into operational-level planning and execution.

What intelligence support will be necessary to implement Joint Seabasing?

Explore the requirements for a Maritime Intelligence Preparation of the Battlespace (M-IPB) concept. How is it different from existing doctrinal IPB processes?

According to USJFCOM, Operational Net Assessment (ONA) is a key enabler of effects-based operations and the Standing Joint Force Headquarters (SJFHQ). How does the operational-level commander integrate ONA and the traditional JIPB (Joint Intelligence Preparation of the Battlespace) process and products?

Joint Challenges:

Develop a paper that initiates a comprehensive investigation of “jointness.” This paper should bound the issue and provide a credible foundation for further inquiry and research. The following approach might be useful: (1) Is there a comprehensive theory of “jointness?” What is it? What are the essential elements? (2) What are the alternative views? (3) At what levels does jointness occur? (4) What is the relationship between jointness and componency? (5) Given defensible answers to the foregoing questions, what are the implications for U.S. military operations in the 21st century?

The effective management of vast quantities of information intuitively appears to be an overwhelming challenge for the netcentric environment. Explore information requirements, sourcing, and flow at the tactical, operational, and strategic levels of war in order to propose an effective management scheme (e.g., sharing, push-pull, tailored, etc.) for dealing with the challenge.

Joint Deployment: Unless otherwise noted, POC is LTC Bryan Newkirk, USA, C-415, 841-3209.

With increasing requirements to get military capability to a regional crisis faster

-----What are the implications of emerging and conceptual high-speed sealift (HSS) technologies for improving the joint force deployment process?

-----Evaluate competing requirements for limited strategic airlift assets to execute inter-theater airlift missions versus intra-theater airlift missions. Recommend feasible/suitable mobility solutions that would meet both “inter” and “intra” theater movement requirements.

Identify and analyze the most significant chemical and biological warfare threats to air- and seaports of debarkation (APOD / SPOD) in terms of the effects on force deployment throughput. Recommend an operational methodology for countering these threats.

Non-U.S. companies now own American Presidents Line (APL) and SeaLand Corporation. What are the implications of foreign ownership on U.S. potential to move commodities by sealift to areas of crisis and conflict? Include in your assessment the implications of using foreign-flagged ships when it is necessary to sail along SLOCs that are subject to enemy attack.

Analyze one or more U.S. operations during the past five years from a joint deployment perspective, and develop conclusions and recommendations for improvement.

Evaluate any one of TRANSCOM's surge strategic lift programs (Civil Reserve Air Fleet , Ready Reserve Force, Voluntary Inter-modal Sealift Agreement, Foreign Flag Shipping, Effective U.S. Control Shipping) in terms of the program's ability to accomplish its joint deployment mission. This evaluation should include strengths, weaknesses, and vulnerabilities, including the Reserve Component relationship, maintenance readiness of equipment and guaranteed use of U.S. commercial and foreign flagged assets in situations that put commercial carriers at risk. Identify solutions to problems and make recommendations for innovation in contracting, call-up, and application of advancing technology.

Quo Vadis VISA? The Voluntary Intermodal Sealift Agreement was hammered out with great difficulty by a steering group comprising maritime labor/management and DOD. But it was not implemented in OIF. Why not? Is this a harbinger of the future? How should VISA be changed to be more useful? Or is it needed at all? POC is Professor Jim Perkins, C-408, 841-6475.

Austere SPODs. Recent operations in Southwest Asia have benefited from availability of world class SPODs. Are we prepared to deploy for major operations through much more austere ports? What sort of preparations and intelligence are required to be effective? Analyze the challenge and identify the critical vulnerabilities with recommended solutions. POC is Professor Jim Perkins, C-408, 841-6475.

Littoral Warfare. Significant research is required in this warfare area. Students interested in pursuing these topics for their JMO papers should visit the POC, Professor Milan Vego, M-11 (841-6483), in order to narrow the topics to specific research questions.

- Influence of Oceanography on the Employment of Naval Forces in the Littorals
- The Arabian (Persian) Gulf: Operational Features of the Physical Environment
- The Adriatic Sea: Operational Features of the Physical Environment
- The Baltic Sea: Operational Features of the Physical Environment
- The South China Sea: Operational Features of the Physical Environment
- The Yellow Sea: Operational Features of the Physical Environment
- The Caribbean Sea: Operational Features of the Physical Environment

- Obtaining and Maintaining Sea Control in an Enclosed Sea Theater
- Exercising Sea Control in an Enclosed Sea Theater
- Sea Denial in an Enclosed Sea Theater
- Basing/Deployment Area Control in an Enclosed Sea Theater

- Major Naval Operations vs. Enemy Fleet at Sea
- Major Naval Operations vs. Enemy Fleet at its Bases

- Defense of the Coast in an Enclosed Sea Theater
- Straits Warfare
- Naval Blockade in the Littorals
- Naval Counter-Blockade in the Littorals
- Land-Based Air vs. Enemy Fleet At Its Bases
- Land-Based Air vs. Enemy Maritime Trade
- Land-Based Air and Defense of Maritime Trade
- Attack on Enemy Coastal Installations/Facilities
- Attack on Enemy Maritime Trade in the Littorals
- Support of Army in Major Offensive Operations on the Coast
- Support of Army in Major Defensive Operations on the Coast
- Anti-Amphibious Defense in the Littorals
- Defense of Naval Bases and Ports in an Enclosed Sea Theater
- Major Operations to Seize Enemy Naval Basing Area
- Major Operations to Defend Naval Basing Area

- Strike Warfare (STW) in the Littorals
- Antisubmarine Warfare (ASW) in the Littorals
- Amphibious Warfare in an Enclosed Sea Theater
- Naval Control and Protection of Shipping in the Littorals
- Offensive Mining in the Littorals
- Defensive Mining in the Littorals
- Offensive MCM in the Littorals

- Naval Command and Control Warfare (C2W) in the Littorals
- Operational Deception in the Littorals
- Operational Fires in the Littorals
- Operational Logistics and the Littorals
- Operational Protection in the Littorals

Logistics / Sustainment: Unless otherwise noted, POC is LTC Bryan Newkirk, USA, C-415, 841-3209.

Should the Seabasing Logistics Concept be developed into the Naval Focused Logistics Operating Concept that complements the Joint Focused Logistics Campaign Plan? Explain your response and identify the developmental steps that would best facilitate the Seabasing Concept. Propose and justify alternate operating concepts that would reduce the logistics footprint ashore, while facilitating maneuver in an area of operations.

The goal of the Focused Logistics Campaign Plan is to “Provide the joint warfighter the right personnel, equipment, supplies, and support in the right place, at the right time, in the right quantities across the full range of military operations.” To meet this goal at the Strategic and Operational levels, the Geographic Combatant Commander, the Defense Logistics Agency (owner of most military repair parts and common supplies), TRANSCOM (The Distribution Process Owner), and JFCOM (the Deployment Process

Owner) must properly integrate and synchronize their responsibilities. Analyze each player's responsibility at the strategic and operational levels, and recommend effort-integrating solutions to meet the Focused Logistics Campaign Plan goal.

Focused Logistics as a Multiplier for Joint Force Operational Reach and Approach. If the concept of Focused Logistics is the fusion of information with logistics capability to provide rapid response with precisely tailored and tracked logistics packages, will focused logistics thus enable the Joint Force Commander to combine forces and actions to attain operational objectives in 2010 differently than today? How will this affect the Joint Force Commander's operational reach and approach in responding across the range of military operations? Is focused logistics the critical link in future operational success?

Explore existing business management and military logistics literatures to identify areas of interface and transfer. Explicitly identify situations and techniques for the implementation of the "new logistics paradigm" in a joint military environment.

Should the Department of Defense establish "The Joint Medical Command" as a new functional command on a level with Space Command, Special Operations Command Strategic Command, and Transportation Command? The purpose of this new command would be to provide the Unified Commanders with Health Services Support (HSS) across the operational spectrum. Argue for or against and include the planning implications.

JLOTS. Joint Logistics Over the Shore is a capability to deploy forces where there is no SPOD or the port is not adequate. Is JLOTS a viable capability? What factors must be in place for a JLOTS operation with today's capability to be successful? What planning factors / metrics does the CJTF need and how can they be developed? What improvements to the current system are required? POC is Professor Jim Perkins, C-408, 841-6475.

Maritime Operations:

Surface Ship Operations in the Littoral. The U.S. Navy has been a blue water navy for the past sixty years. With Forward...From The Sea (1994), we refocused to a realm -- the littoral -- that has been the primary battlespace of many navies since their inception. What lessons can the U.S. Navy learn about littoral operations from these navies that may be applied to the present and future? Although we have learned much from our long-time allies, others such as the Baltic navies may be a great, untapped source of littoral operations experience. Our ability to take the fight into the littoral against a modern and well-equipped enemy has not been challenged since World War II. However, the globalization of technology and information make a near term challenge to accomplish this very likely. A better understanding of how littoral navies plan to fight enables identification of the capabilities to assure access to the littoral battlespace. POC is Captain Mike Felmly, USN, Sims Hall, SW-329.

Air Defense in the Maritime Environment. What is the recommended relationship among the Area Air Defense Commander (AADC), the Joint Force Air Component Commander (JFACC), and their super-ordinate operational commander, and why?

Construct a hypothetical, operational-level naval force that is netcentric in nature. Place that force under attack by an adversary that is quantitatively and qualitatively similar, but platform-centric in nature. Disable-by-combat or eliminate key nodes in both forces, then argue the outcome.

Develop an operational methodology for minimizing the time required to sanitize a maritime choke point to permit merchant ship flow and unfettered allied operations against an adversary possessing extensive mine-laying capability, credible submarine and torpedo threats, coastal anti-ship missiles, credible but limited air warfare and maritime strike capabilities, and significant small boat capability. Methodology must stress “in-parallel operations” such as concurrent MCM and ASW in an ASCM and small boat threat environment.

Military Operations in Urban Terrain (MOUT). MOUT -- or Joint Urban Operations (JUO) as discussed in U.S. joint literature -- are joint operations planned and conducted across the range of military operations on a topographical complex and its adjacent natural terrain where manmade construction and the density of noncombatants are the dominant features. As demonstrated by U.S. experience during the past 15 years, U.S. joint force operations in urban areas are steadily increasing. Further as the result of U.S. experience with MOUT, doctrine is being developed (Joint Pub 3-06) whose basis will be dominant maneuver. However, for such doctrine to be cohesive, exhaustive, and effective, it must address complicated and dangerous challenges.

- MOUT Stages -- USECT (understand, shape, engage, consolidate, transition)
- Strategies -- surgical, precision, high intensity / smash & grab, pacify & preserve, seize/hold.
- Operational Functions (movement & maneuver, intel, fires, logistics, C2, etc.)
- Human Factors (morale, stress, discipline, culture, language, casualties)
- Interoperability -- Joint and Multinational
- Levels of Responsibility
- Measures of Effectiveness
- Alternatives to Close Combat (ISR enhancement, nodal operations, etc.)
- Information Operations
- Specialized Force Considerations
- Technologies (training, lethal, non-lethal, equipment, sensors)
- Rules of Engagement (collateral damage)
- Interagency and Multinational Roles and Missions
- MOUT Challenges in the spectrum of conflict (MOOTW)
- Joint Theory / Doctrine / Tactics-Techniques-Procedures (DOTMLPF-P)
- Reduction of {friendly: enemy} combat ratio.

Non-Lethal Weapons:

Do non-lethal weapons have a legitimate battlefield role, or should they be used only for peacekeeping and humanitarian type missions?

Develop an operational concept for the employment of non-lethal weapons in a war-fighting environment. Include projected scenarios, suitability of acoustic and directed-energy weapons, and automation implications such as UAV employment.

Develop an operational concept for the employment of non-lethal weapons in a “military operations other than war” environment. What are the cultural implications for an operational commander attempting to quell civil unrest by non-lethal means?

What are the legal implications of non-lethal weapons for the operational commander? Include rules of engagement considerations.

How vulnerable to countermeasures are non-lethal weapons?

Identify and evaluate a process to effectively measure the biological effects of non-lethal weapons for the purpose of assigning risk; include consideration of lethality curves in this evaluation.

Operational Law: POC is Commander Peter Dutton, JAGC, USN, C-424, unless otherwise noted.

Is the Law of Occupation, as per the Geneva and Hague Conventions and Regulations, relevant today in OIF? Do the requirements from the 20th century work today?

Automated Targeting and the Law of Armed Conflict. If UAVs now can identify and destroy targets, who is responsible/accountable under the LOAC for those targeting decisions? If the algorithm proves faulty and civilians are killed or non-military targets are destroyed, who would be accountable - the JTF CDR, the programmer of the algorithm, the service member, DoD contractor, DoD civilian monitoring UAV actions at a terminal (perhaps in a different AOR), or the commander who employs them? What if the targeting with UAVs becomes automated? Who will be accountable? What considerations impact the C2 issue for the JTF Commander?

Are there emerging trends and concerns for the JTF CDR regarding the many new persons in the battle space in OIF and GWOT, such as the extensive use of Special Forces with the Northern Alliance in Afghanistan or in the Philippines, the use of CIA operatives, DoD contractors, civilian technical reps, and other civilians who now accompany our coalition forces? Has the definition of "lawful combatant" now changed? After Afghanistan and Iraq, are the rules now different regarding the wearing of military uniforms on the battlefield? After Kosovo, Afghanistan, and Iraq, is there a new LOAC standard for collateral damage with the availability of precision-guided munitions?

Is there a growing body of international law in the GWOT that differs from past practice, with which the JTF CDR must be concerned? Should The Hague and Geneva Conventions be reconsidered? Is a new Law of Armed Conflict Convention necessary to reflect the U.S. view of the realities of the current Terror War or can existing treaties fill in the gaps? Do the terrorists have the advantage under international law? As an example, should terrorists being held in Guantanamo Bay, Cuba, be afforded more or fewer rights?

The JTF CDR may want to use or establish different zones in the AOR, whether they are called warning zones, security zones, total exclusion zones, no-drive zones, or no-fly zones. Does international law now permit them in every case? Should it? What are the implications of the use of such zones? What if our enemies declare them, too?

As we know from OIF, every OPLAN must address the post-hostilities phase. What does this mean in the context of the GWOT and the detainees being held around the world by members of the coalition? Are they POWs or criminals subject to prosecution? When will GWOT "terminate" so that POWs, if there are any, would normally be released?

Are customary practice, the UN Charter, and/or The Law of the Sea Treaty adequate to justify ongoing coalition Leadership Interdiction Operations (LIO) or the interdiction of WMD-capable weapons and parts in international waters? Is some other legal regime or authority needed? Should ROE for LIO be different based on the AOR of the flag of the ship? Does the JTF CDR have all the necessary authorizations?

What are the challenges facing the JTF CDR to ensure DoD forces engaged in Homeland Security and working side-by-side with federal civilian and state agencies utilize common ROE or use-of-force rules? Is that possible? What about Canadian ROE concerns that may impact future Homeland Security ROE issues in NORTHCOM?

About what issues should the Joint Force Commander be concerned because of the relationship between the United States and the International Criminal Court (ICC)?

Restrictions on Anti-Personnel Landmines in Coalition Operations. Almost all likely future coalition partners are parties to the Ottawa Convention, banning the use of anti-personnel landmines (APL) in combat. Examine the planning implications for a future JTF. Will U.S. forces be precluded from using APL in defending countries that are party to the Convention? If a coalition partner's force would receive a tactical benefit from a U.S. force's use of APL, will that partner be able to take part in a combined operation? How will the Convention affect overseas prepositioned stocks?

Legal tools in the Theater Cooperation toolbox. Each U.S. theater staff must develop a Theater Security Cooperation Plan with specific sub-plans for engaging each country in the AOR. Various federal laws authorize specific forms of assistance such as: transfer of excess defense articles, Presidential Draw-downs from DoD stocks, grant and

sale of defense articles and services, International Military Education and Training, Humanitarian and Civic Assistance, Disaster Relief, "Combatant Commander's Initiative Funds," Special Operations Training, and Combined Exercises. How might these authorities be used by a specific theater staff to assist a given country (e.g., Iraq, Afghanistan, Indonesia, Colombia, Nigeria, Poland, Liberia, the Philippines)?

Economic Sanctions/Maritime Intercept Operations as a Flexible Deterrent Option (FDO) or Course of Action (COA). In selecting a FDO or the best COA, when would the use of international economic sanctions enforced through military means be an attractive FDO or COA for a JTF CDR? What lessons can be learned from sanctions imposed against South Africa, Iraq, Haiti, and Serbia? What operational factors make selection of economic sanctions as a FDO or COA more or less attractive?

MOUT & LOAC. Future conflicts will likely involve Military Operations in Urban Terrain (MOUT). What aspects of the Law of Armed Conflict (LOAC) must the JTF CDR consider in planning for and executing such an operation? Will protecting non-combatants mean sustaining more U.S. military casualties, and if so, what are the operational implications? What MOUT lessons did we learn from OIF?

Operational Implications of China's Excessive Maritime Claims. Many of China's straight baselines are excessive under the customary international law of the sea. Additionally, China appears to claim to restrict the right of foreign military warships to innocent passage in its territorial sea, and to high seas freedoms of navigation and over-flight in its exclusive economic zone. How do these excessive claims impact future operations along the Chinese coastline? What are the risks and benefits of operationally challenging (or failing to challenge) these excessive claims?

Indonesia is in the process of designating its archipelagic sea-lanes with the IMO. Is it being done in accordance with the Law of the Sea Convention? Because the United States is not a party to the Law of the Sea Convention, can it complain? What are the operational implications for the maritime powers of the designation of the archipelagic sea-lanes?

Consequence Management for Weapons of Mass Destruction: Are JFCOM and NORTHCOM ready? What does federal law authorize active and reserve forces to do in the event of a WMD incident inside or outside the United States? Is the law adequate to allow DoD to respond? Are there still limits in *Posse Comitatus* that will restrict DoD? Have DoD and the Department of Homeland Security resolved all the coordination issues?

Assassination or Lawful Target: Going After Enemy Leadership. What are the international and U.S. legal considerations affecting the selection of a COA involving an attack on the national leadership of an enemy state during international armed conflict? What are the political and military considerations? Can terrorist leaders be targeted in other nations in the GWOT?

Non-Flag State Enforcement of Counter-Drug Agreements. Article 17 of the *UN Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances* allows high seas non-flag state enforcement of narcotics trafficking laws pursuant to treaties and agreements in force between the flag state and the enforcing state. The Department of State and the U.S. Coast Guard have completed a number of such agreements that allow, under agreed conditions, the United States to board, and if appropriate, take enforcement action against foreign flag vessels on the high seas. Analyze these agreements, describe their common provisions, discuss the Law of the Sea provisions underlying each, and examine the implications for the recognized high seas freedom of navigation.

Law of Armed Conflict Implications for Information Warfare Operations. Militaries are developing new capabilities using computers to disrupt enemy information systems. Such non-kinetic attacks have the potential to shut down electrical power, public water works, banking services, and commercial telephone and other communications systems. Analyze how the current Law of Armed Conflict applies to such attacks and how the Law may need to change in order to protect noncombatants more effectively during armed conflict between nations.

ROE in the Net Centric Environment. Ideally, development of operational ROE results from operational and tactical level recommendations that are approved by higher authority for implementation. Analyze the potential for net centric capabilities to reverse this process, resulting in the creation / direction of uncoordinated "top-down" ROE. Can such a tendency be mitigated?

Operations Other Than War (OOTW):

Based on U.S. military experience during the past five years, define and defend the tenets that a U.S. operational commander should employ when dealing with indigenous warlords during complex OOTW missions.

Future Insurgencies. A common basis for many 20th century insurgencies has been Marxist / Leninist ideology. This factor may have influenced unduly the analysis of what are thought to be insurgency's common characteristics, regardless of roots. With the end-Cold War reduction in Marxist / Leninist sponsorship and influence, and the concurrent rise of other influences, what will be the more likely basis/bases (cultural, ethnic, religious, etc.) for 21st century (2000-2025) insurgencies? Will a shift in insurgency's basis change insurgency common characteristics? Why not, or why / how?

Command & Control of Information Operations. Information warfare will provide the future commander an extensive set of options, in addition to precision-guided munitions, to attack enemy centers of gravity. In operations other than war, information operations will provide a similarly important set of options. Given that current coordination arrangements simply will be too slow to accommodate the 2010 tempo of operations, how will the future commander exercise C2 of these options, which may be controlled by other agencies or at the National Command level?

Joint Vision Operational Concepts in Military Operations Other Than War (MOOTW). If JVs 2010 / 2020 apply across the range of military operations, then how do Dominant Maneuver and Precision Engagement apply in Military Operations Other Than War (MOOTW)?

Netcentric Operations (NCO) in MOOTW: Do They Apply? What of Kosovo and NCO? Or in a less intense scenario, what are the implications of NCO when speed of command, speed of targeting, speed of effects, speed of information, speed of BDA, target quantity, etc., are overshadowed by MOOTW principles such as Perseverance or Legitimacy (or politics)? Analyze NCO within the framework of MOOTW principles (“SLURPO”) and other major parameters that distinguish MOOTW. Is there a discernible level-of-war distinction for NCO in MOOTW? Potential case studies include Kosovo, El Salvador, and Haiti.

From certain perspectives, the U.S. Navy has shunned OOTW operations in favor of more traditional activities. Given a modern GWOT climate and incessant competition for resources, is this a suitable Service strategy? What are the pros and cons? What do operations of the past 20 years suggest? POC is Professor Jim Perkins, C-408, 841-6475.

Precision Engagement:

It appears that no U.S. Armed Service has workable concepts or technical means to engage moving targets effectively - - the fastest growing target set ashore or afloat. Identify the main parameters of the problem and recommend a pragmatic, achievable methodology for implementing a solution.

Discriminate Effects in Precision Engagement. Discriminate effect is a central tenet of precision engagement. If destruction of the target is not always the objective, then what are these alternative effects? Precision engagement describes an ability to identify objectives and bring the right combination of effects to bear at the right time to accomplish the mission. What are the different, alternative effects and how might each functional component contribute to a Joint Force Commander’s possible courses of action across the range of military operations?

Relationship of Dominant Maneuver to Precision Engagement. If dominant maneuver and precision engagement depend on decisive control of the breadth, depth, and height of the battlespace, and both focus on a desired effect or accomplishment of an objective, then what is the relationship between these two concepts? Can one exist without the other? Assuming they cannot, determine if conceptually they are simply two aspects of a single concept.

Precision Engagement. Given the “precision” capabilities of current and future U.S. military forces (delivery platforms, weapons, and weapon effects), what new options does precision engagement offer the Joint Task Force commander or Combatant Commander across the range of military operations - - particularly at the lower end of the spectrum?

Naval Surface Fires in the 21st Century Netcentric Navy. Contemporary Naval Surface Fire Support (NSFS) doctrine and processes evolved from the capabilities of the MK 1A analog fire control system. They are based on ships navigating with visual and radar fixes, and do not account for guided munitions, ranges beyond 24 nautical miles, or control of batteries by units other than the firing unit. What are the paradigms -- Navy, Naval, and Joint -- that must be changed to allow the envisioned Netcentric engagement grid to function? Are these paradigm changes being addressed and resolved in Fleet Battle Experiments (FBEs) and systems development? This issue presents a significant, near-term concept and doctrine development challenge. POC is Captain Mike Felmly, USN, Sims Hall, SW-329.

What does the term "Overwhelming Power" mean to the operational commander? Will it work -- on what? What are the risks? Is there a point where overwhelming power won't work? The "Bloody-minded Brits" in World War II were determined to survive and persevere against the German bombing of their cities. What about 72 days of Kosovo, or Blitzkrieg, Dresden, Hiroshima? The Net-Centric Navy will be able to fire 6000 rounds per hour per ship -- what happens if we run out of effects before the enemy runs out of will?

Regional Security Issues:

The Gulf Cooperation Council (GCC) Peninsula Shield Force (PSF). Analyze the PSF to determine, in support of USCENTCOM planning, PSF potential influence as a deterrent force. Components of analysis should include force structure (current and planned) and applicability, capabilities and limitations, training, command relationships, and political limitations.

USPACOM Theater Strategy. What should PACOM's theater security & cooperation strategy be for the Asia-Pacific region? What are some alternative strategies? How might the theater strategy evolve in the future?

Asia-Pacific Multilateralism. Is multilateralism an appropriate approach to achieve security for the Asia-Pacific region? How might the United States and USPACOM cultivate multilateral security cooperation in Asia?

The Northwest Pacific Strategic Triangle. Are good relations among China, Japan, and the United States essential to security and stability in the Asia-Pacific region? What is most likely to happen if one leg of the triangle fails? How might the United States strengthen the China-Japan leg of the triangle?

China's Military Modernization. What appear to be the highest priorities in China's military modernization plans? Do these plans threaten regional stability and/or the United States? What happens to China's modernization plans if its economic growth accelerates? Decelerates?

Given a range of alternate futures for the Mediterranean basin, what should be the optimal U.S. naval presence deployed to that region? How should the Combatant Commander (EUCOM) and his Naval Component Commander (COMUSNAVEUR) employ these forces to maximize both an effective shaping of the maritime AOR, and effective response to instabilities and crises?

U.S. Southern Command (SOUTHCOM). Topics with potential as JMO Papers have been provided by the SOUTHCOM staff. The topic list may be accessed at <http://jdeis.cornerstoneindustry.com/JSPportlets/eduResearch/users/intro.jsp>.

What would be the national security implications to the United States if the Panama Canal came under the control of a hostile Panamanian government or that of a narco-state?

The oceanographic reality of diminishing ice in the Arctic region heralds a variety of significant implications. What are the theater-strategic, naval implications of this situation?

Space Operations: POC is Professor William Martel, C-310, 841-6428.

Space support to navigation, information transfer, and sensing is vital to terrestrial operations conducted by all U.S. Military Services. Contemporary, unchallenged U.S. dominance of space is perceived to be diminishing: advanced technologies can make third-class entities into first-class threats; commercial space support is proliferating and available for open market purchase. Given diminishing U.S. space dominance, develop a U.S. operational plan for space.

What is the proper role of space in contemporary operational art?

Should space in and of itself be considered a fourth dimension of warfare?
Should space be designated a formal Area of Responsibility (AOR)?

What Space Control effects should Navy be able to achieve and contribute to USSPACECOM or to any geographic commander's theater concept of operations?

How does the increasing role of commercial space systems affect military operations, including joint air, land, and sea operations?

Special Operations:

Command and Control of SOF. What is the ideal command structure for a special operation? When compared to General Purpose Forces (GPF), do SOF require more centralized or de-centralized control? Do SOF historically succeed more often under decentralized control? Do strategic, operational, or tactical level special operations have different characteristics that dictate either a centralized or decentralized command and control structure? How will information technology impact the command and control of special operations?

Determine Optimum Command & Control Structure for Deployed Naval Special Warfare (NSW) Forces. Examine utility, composition of deployable NSW TG/TU, and C4I cells to determine how best to integrate NSW forces into fleet and theater operational chains of command. Project should offer functional models and MOEs for comparison of models.

Organizational/ Bureaucratic Effects on Special Operations. Organizational friction and bureaucratic politics can impact the success of special operations and the way they are employed in a crisis or conflict. Is this more prevalent in strategic, operational, or tactical level special operations? What is the best way to organize the special operations community in order to minimize this problem? Would a true SOF military branch exercising complete operational and administrative control of aviation/ground/maritime SOF be of benefit? Would a structure that had SOF aviation/ground/maritime components integrated at the lowest levels be more efficient?

SOF Command & Control Element Doctrine. The current doctrinal employment for SOF specifies the use of various command echelons below the JSOTF. It is relevant, however, that SOF very seldom deploy in the true doctrinal structure; it has even been suggested that this doctrinal structure may be outmoded due to advances in command and control, and logistics support capabilities. Any study of this topic should review SOF employment in contingencies and exercises, and specifically address command and control, and logistics support issues. The objective is to determine recommended changes to SOF C2 doctrine that would result in more effective and efficient operational support to the operational commander.

SOF Non-Lethal Weapons Systems. Examine the utility and applicability of “non-lethal” weapon systems for SOF. What analytical criteria should be used to determine the utility of these weapons systems? What types of weapons systems have applicability for SOF operations? What operational challenges do these weapons present? What policy challenges do these weapons raise?

Timing of High-Profile Special Operations That Are Linked to National Policy. In high profile special operations such as hostage rescues, timing can impact the success of an operation. Launching early in a crisis has pros and cons. While early operations allow for surprise and the hope of a quick resolution to a national crisis, they also pose risks including a more alert enemy force, or SOF planning and execution with minimal intelligence. Using SOF later in a national crisis also has pros and cons. While more time for planning and rehearsals allows for a better plan, the security risks increase over time and the target becomes more entrenched or hostages are dispersed. What is historically the ideal time to use SOF during a high profile national crisis? What future trends (technology, information warfare, etc.) will play a role in the timing of special operations? What is the best use of SOF in conjunction with coercive diplomacy?

Theater-Strategic and Operational Level Intelligence Preparation of the Battlefield for Special Operations. Conduct a focused examination of the intelligence preparation of the battlefield (IPB) process directed toward identifying specific aspects of IPB that will assist SOF planning. The elements of IPB relevant to tactical SOF mission planning are relatively apparent, although further standardization of these processes would be useful. The more significant issue is emphasis on the operational level of war and SOF planning

at the JTF / JSOTF level. What IPB elements are directly transferable? What new aspects of the battlefield should be considered? Are there IPB tools/techniques that can aid commanders in selecting appropriate SOF targets during the overall targeting process? The desired product is a paper to aid SOF planners and intelligence personnel in conducting IPB.

Theater Security & Cooperation Plans. Each regional combatant commander maintains a TSC Plan for his AOR. Select one TSC, identify a gap in the plan, and write a paper that fills the gap.

Transformation: Many transformation topics can be tailored to generate appropriate research questions and very effective Operations Papers. These topics are too numerous to list in this publication but are easily obtained by investigation of recent literature on the subject. The Joint Topics Database is a good place to start.

Weapons of Mass Destruction:

Joint doctrine specifies Combatant Commander planning responsibilities with regard to weapons of mass destruction (WMD). Evaluate this doctrine in terms of its utility to the operational commander in developing and maintaining an effective theater strategy.

What policy and capability decisions are required to correct existing shortfalls in Navy and USMC overall competence to provide passive defense in a chemical / biological warfare environment?

Part 2: Topical Areas for Operational Art and the Operational Level of War

The topical areas in this section deal with various aspects of operational art, the operational level of war, and case studies. You might choose a certain conceptual topic of operational art, then develop a thesis as applied to a particular case or set of cases from the past, present, or future. A topic may deal either with war or military operations other than war (MOOTW). Your research can range from operational-tactical (component command or joint task force in U.S. terms), operational level (theater of operations), to theater strategic level (combatant commands in U.S. terms), as long as your main thesis is focused on the Operational Art. Two cautionary criteria are provided for case studies. First, do not restate in your own words work that has already been done. Second, all case study analysis must result in conclusions and recommendations guided by the following question: what are the implications for the U.S. military and its activities in the 21st century.

OPERATIONAL ART & THE OPERATIONAL LEVEL OF WAR

Air Operations: counter-air; offensive; defensive.

Command and Control Warfare (C2W).

Command, Control, Communications, Computers, and Intelligence (C4I).

Information Operations (IO); Information Warfare (IW).

Network Centric Warfare (NCW).

Noncombatant Evacuation Operations (NEO).

Operational Art Considerations in MOOTW.

Operational Aspects of Conducting Maritime Blockade.

Operational Deception in a Maritime (or Land) Theater.

Operational Design.

Operational Fires: lethal; non-lethal; air-based; land-based; sea-based.

Operational Intelligence, Surveillance, Reconnaissance.

Operational Logistics.

Operational Maneuver in land warfare; naval warfare; air warfare; joint warfare.

Operational Maneuver From the Sea.

Operational Pause.

Operational Planning.

Operational Protection.

Operational Reserve.

Operational Scheme.

Operational Sequencing.

Operational Surprise at Sea.

Operational Synchronization.

Preparation of an Immature Theater.

Rules of Engagement (ROE).

Sustainment of Major Operations.

Theater Aerospace Defense.

Theater Missile Defense from an Operational Art Perspective.

Historical Case Studies. *Do not write a paper fixed on a specific campaign or major operation to illustrate its significance. The proper approach is to develop a research question & thesis statement from an operational art or operational-level-of-war topic, and then employ examples from case studies to answer the research question and demonstratively support the thesis. This pertains to both historical and modern case studies.*

Emergence of Operational Art and Associated Influences:

- Cultural, Societal, Technological Influences.
- Influence upon land warfare; war at sea; air warfare.

German Offensive in Southern Russia, Summer 1942.

German Protection of Shipping from 1941-1945 (e.g., Baltic; Black Sea; Arctic).

Jointness in Historical Campaigns; for example:

- New Guinea Campaign, 1942-44;
- Italian Campaign, 1943-45;
- Operation *Zitadelle* (Battle of Kursk), July 1943;
- Soviet Baltic Operation;
- Soviet East Prussian Operation;
- Petsamo-Kirkeness Operation.

Operational Art as Practiced by: Field Marshal Rommel; General George S. Patton; Admiral Nimitz; Napoleon I; General Slim; Admiral Togo; von Moltke Sr.; von Manstein; Guderian; Montgomery; Zhukov; etc.

Operational Aspects of an Air Operation:

- German Air Offensive against Britain;
- 1940-1941 German *Luftwaffe* vs. Allied Shipping;
- Allied Air Offensive on Germany (Operation POINTBLANK).

Operational Aspects of a ground operation or campaign:

- German Invasion of Yugoslavia, April 1941;
- German Campaign in North Africa, 1941;
- Allied Campaign in North Africa, 1940-1942.

Operational Aspects of a maritime operation or campaign.

- The "Battle of the Atlantic"
- The Russo-Japanese War

Operational Deception: Operation OVERLORD; Operation HUSKY; Operations DESERT SHIELD/STORM and others of the most recent decade.

Operational Leadership of a flag or general officer.

Operational Intelligence, Surveillance, Reconnaissance; e.g., Battle of Coral Sea; Battle of Midway.

Operational Reserve; e.g., U.S. Fast Carriers in the Pacific, 1942-43.

Operational Sustainment in the Central Pacific Campaign, 1943-1944.

Operations (Major) in World War II, e.g.,

- Allied Amphibious Landing in North Africa, November 1942 (Operation TORCH);
- Allied Amphibious Landing at Salerno, September 1943 (Operation AVALANCHE).

Plan *Marita* (the German invasion of Greece).

U-Boat Operations vs. Allied Convoys in North Atlantic, March-May 1943.

Underway Replenishment in the Pacific, 1941-45 (operational significance).

U. S. Air Offensive against North Vietnam:

- Operation ROLLING THUNDER;
- Operation LINEBACKER I;
- Operation LINEBACKER II.

Modern Case Studies.

ABLE MANNER (May 92-Feb 93)

U.S. Coast Guard-led operation, with some USN participation, to stem illegal Haitian migration into the United States by interdicting refugee craft at sea. JTF 120 activated in Oct 93 to conduct

Maritime Interdiction Ops and support possible NEO of Americans from Haiti. Processing and repatriation of Haitians also part of the mission.

ABLE SENTRY (Jul 93 - Present)

Deployment of U.S. Army reinforced company to Macedonia in conjunction with an in-place UN Protection Force. Task was to monitor and report on activities along the Macedonia-Serbia border regarding any friction with the ongoing civil war and breakup of the former Yugoslavia.

ALLIED FORCE (Mar - Jun 99)

The NATO operation for restoration of peace and stability in Kosovo.

ARABIAN GULF M.I.O. OPERATIONS (Aug 90 - Present)

Combined maritime intercept operations in the Arabian Gulf to enforce UN sanctions against Iraqi oil and other imports/exports.

ASSURED LIFT (Feb 97)

USAF provided airlift support for ECOMOG peacekeeping troop deployment to Liberia. United States also provided a JSOTF to ensure security of aircraft and crews.

ASSURED RESPONSE (Apr - Aug 96)

Protection mission in and around Liberia. Ended in a noncombatant evacuation of >2400 people by a U.S. joint task force as Liberia was going through internal factional violence.

CONSTANT VIGIL (Mar 91 - Present)

A series of continuous U.S. Army Patriot battery crew deployments to Southwest Asia since the end of the Persian Gulf War. Extended to include Patriot batteries in South Korea.

CONTINUE HOPE (May 93 - Mar 94)

Joint operation to continue famine relief operations in central and northern Somalia after Operation Restore Hope (UNITAF) was ended.

CORONET NIGHTHAWK (1996 - Present)

Counter-drug operations in which Air National Guard F-15/F-16 aircraft are deployed for six-week periods to Howard Air Base in Panama, and used to track and intercept suspected drug trafficking planes.

CORONET OAK (1978 - Present)

Reconnaissance, resupply, and support missions flown by Air National Guard C-130s in support of special forces and radar tracking units engaged in counter-drug operations in central and northern South America. C-130s staged out of Howard Air Base in Panama on a rotating basis.

DECISIVE EDGE (Jan 96 - Present)

Joint and combined operation to support the peace implementation force (IFOR), and later the Stabilization Force (SFOR), while enforcing the U.N. mandated no-fly zone over Bosnia-Herzegovina.

DELIBERATE FORCE (Aug - Sep 95)

NATO air strikes against Bosnian Serb targets in response to cease-fire violations and attacks by Bosnian Serbs on civilian targets in Sarajevo, and Serb refusal to withdraw heavy weapons from a 20 km radius around that city.

DELIBERATE GUARD (Apr 93 - Present)

Combined air operations over the former Yugoslavia done in three phases: Phase I (Dec 96-Present) in support of Operation JOINT GUARD; Phase II (Dec 95-Dec 96) as a follow-on to Operation DECISIVE EDGE; and Phase III (Apr 93 - Dec 95) as follow-on to Operation DENY FLIGHT.

DENY FLIGHT (Apr 93 - Present)

NATO air operations instituted to prevent unauthorized flights over Bosnia by Bosnian Serb warplanes.

DESERT FALCON (1992 - Present)

U.S. task force in Saudi Arabia to provide TBM defense.

DESERT FOCUS (Aug 96)

Relocation of U.S. service personnel and DoD civilians, and force protection activities in Saudi Arabia following the Khobar Towers terrorist attack.

DESERT SHIELD (Aug 90 - Jan 91)

The initial phase of the Persian Gulf War in which a build-up of U.S. forces and those of an international coalition were arrayed against Iraqi forces occupying Kuwait and threatening Saudi Arabia.

DESERT STORM (Jan - Feb 91)

Second phase of the Persian Gulf War in which air, land, and sea combat operations were initiated by the U.S.-led coalition force against Iraqi targets in Kuwait and Iraq, with the intention of freeing Kuwait from Iraqi occupation and reducing Iraq's military power.

DESERT STRIKE (Sep 96)

U.S. joint operations against Iraqi forces carrying out aggression against the Kurds in northern Iraq. As a result, the previously declared "no-fly" zone in Iraq, set after the Persian Gulf War, was expanded to give a greater measure of protection to the Kurds.

DETERMINED GUARD (Dec 95 - Present)

Combined maritime operation in support of Operations JOINT GUARD and DECISIVE ENHANCEMENT in Bosnian waters.

DISTANT RUNNER (Apr 94)

USAFE and USMC evacuated 230 people from Rwanda due to Hutu & Tutsi fighting.

EASTERN EXIT (Jan 91)

Noncombatant Evacuation Operation (NEO) of U.S. Embassy in Somalia by U.S. naval forces that originally had been attached to the amphibious forces buildup in the Persian Gulf for Operation Desert Shield.

ENDURING FREEDOM (October 2001 - present)

FIERY VIGIL (1991)

Humanitarian ops and evacuation of U.S. military dependents from Luzon, Philippines, after the eruption of Mount Pinatubo. All four Services participated.

GREEN CLOVER (Oct - Dec 95)

Counter-narcotics surge operations in South America.

GUARDIAN ASSISTANCE (Nov - Dec 96)

Logistics support operation to a multinational force in Rwanda and Zaire overseeing the return of Rwanda refugees back to their homeland after civil war.

GUARDIAN RETRIEVAL (Mar - Jun 97)

Noncombatant evacuation of U.S. citizens from Zaire due to increasing violence of civil war. USAF airlift assets and USN amphibious group offshore were primary rescue forces with SOF on standby for security for an "in extremis" rescue mission.

IRAQI FREEDOM (March 2003 - present)

JOINT ENDEAVOR (Dec 95 - Dec 96)

NATO operation designed to implement the military aspects of the Dayton Peace Agreement in the former Yugoslavia and end the civil war.

JOINT GUARD (Dec 96 - Present)

The deployment of U.S. ground forces to Bosnia, Croatia, and Hungary upon conclusion of Operation JOINT ENDEAVOR. A.k.a. NATO Stabilization Force (SFOR) ops.

JTF ANDREW (Aug - Oct 92)

Disaster relief in south Florida due to Hurricane Andrew's devastation.

JTF FULL ACCOUNTING (Jan 92 - Present)

Research and recovery operations in Southeast Asia designed to resolve the cases of Americans still unaccounted for after the Vietnam War and other conflicts.

JTF HAWAII (Sep - Oct 92)

Disaster relief on the island of Kauai following Typhoon Iniki.

JTF LIBERIA (Oct 92)

Noncombatant evacuation operation of American citizens (and others) from Liberia.

JTF LOS ANGELES (May 92)

Active forces integrated with the California National Guard to support civilian authorities responding to incidents of widespread rioting, looting, and violence.

JTF MARIANAS (Aug - Sep 92)

Disaster relief on Guam following Typhoon Omar.

JTF SARAJEVO (Jun 92)

Noncombatant evacuation operation of Sarajevo.

JTF SIERRA LEONE (May 92)

Noncombatant evacuation operation of non-essential personnel from Sierra Leone.

JTF TAJIKISTAN (Oct 92)

Noncombatant evacuation of U.S. personnel from the central Asian country of Tajikistan in the former Soviet Union.

JUST CAUSE (Dec 89 - Jan 90)

U.S. invasion of Panama utilizing joint forces to protect American citizens and forces from abuse by Panamanian military personnel, to oust Panamanian dictator Manuel Noriega, and to restore a democratic government to that country.

LASER STRIKE (Apr 96 - Present)

Counter narcotics surge operations in South America.

MFO SINAI (Apr 82 - Present)

Continuous monitoring of the provisions of the peace accord between Israel and Egypt following the 1973 Arab-Israeli war.

NOBLE OBELISK (May - Jun 97)

Noncombatant evacuation of U.S. citizens and others from Sierra Leone to a USN amphibious group offshore.

NORTHERN WATCH (Jan 97 - Present)

Enforcement of the northern no-fly zone over Iraq by USAF assets as replacement for Operation Provide Comfort in which Kurds were protected from Iraqi air attack.

PACIFIC HAVEN (Sep 96 - Apr 97)

Humanitarian transport of Kurdish evacuees from northern Iraq to Guam to protect them from Iraqi reprisals.

PRAYING MANTIS (Apr 88)

POTUS decision to address Iran militarily for its illegal mining operations in the Arabian Gulf after *USS Samuel B. Roberts* hit a mine. A USN surface force was designated to destroy Iranian oil platforms and military vessels in the Gulf.

PROMOTE LIBERTY (Feb - Jun 90)

A follow-on operation to JUST CAUSE intended to provide post-conflict restoration in Panama. Joint forces undertook nation-building efforts such as police stabilization, civil affairs, and Panama Defense Force reconstruction, while providing a peaceful venue for democratic processes to assert themselves.

PROVIDE COMFORT (Apr 94 - Dec 96)

Coalition effort of the United States, Britain, France, and Turkey to provide immediate humanitarian assistance to 1.2 million Kurdish refugees who had fled to the mountains of northern Iraq and southern Turkey in the aftermath of the Persian Gulf War, to avoid Saddam Hussein's persecution. Humanitarian effort continues today.

PROVIDE HOPE I (Jan - Feb 92)

Sixty-five C-141 and C-5 missions flew thousands of tons of food and medical supplies to the Commonwealth of Independent States (CIS) under the auspices of USAFE.

PROVIDE HOPE II (Apr - Jul 92)

Long-term aid effort to cities in the former Soviet Union. Food and medical stocks were supplied in the wake of problems stemming from the 1990 break-up of the USSR. Land and sea transportation of relief supplies instituted under control of USEUCOM.

PROVIDE HOPE III (Jan - Apr 94)

USAFE shipped and provided installation of hospital equipment in Belarus, CIS. Training technicians sent along to instruct Belarussians in use of the equipment.

PROVIDE HOPE IV (Jul - Aug 94)

Joint force medical personnel installed \$12.5 million of medical supplies and equipment in Kazakhstan.

PROVIDE PROMISE (Jul 92 - Feb 96)

Joint and combined operation to support humanitarian aid to Bosnia-Herzegovina and Croatia while involved governments tried to arrange a politically acceptable cease-fire for all warring factions.

PROVIDE RELIEF (Aug 92 - Feb 93)

Organized by USCENTCOM to provide military assistance in support of humanitarian relief to southern Somalia and northern Kenya under the U.N. auspices of UNOSOM I. Provide Relief set up a JTF to conduct rapid airlift of foodstuffs and other supplies to those communities hardest hit by factional fighting and drought.

PROVIDE TRANSITION (Aug - Oct 92)

A United Nations multinational effort to relocate government and rebel soldiers in Angola following the democratic elections ending 16 years of civil war. USAFE and Air Mobility Command units participated.

QUICK LIFT (Sep - Oct 91)

A USEUCOM joint task force deployed French and Belgian troops to Zaire and eventually evacuated over 700 people from that country following a mutiny by Zairian forces.

QUICK RESPONSE (May - Aug 96)

USN and USMC evacuation of 448 U.S. and other personnel from the Central African Republic to an Amphibious Ready Group off the West African coast following a break out of fighting in that country's capital city.

QUICK TRANSIT I / II (Sep - Oct 86)

Evacuation in two phases of >2700 Kurds from northern Iraq to Guam (also known as Pacific Haven).

QUICK TRANSIT III (Dec 96)

Further evacuation of nearly 3,800 pro-U.S. Kurds to Guam from northern Iraq.

RESTORE HOPE (Dec 92 - May 93)

Second phase of the U.N. sponsored humanitarian relief mission to Somalia. This phase also had an element of limited coalition military action in that it attempted to arrest individuals considered to be guilty of abetting the famine and civil war, and conducting arms seizures from the civilian populace who threatened coalition forces. This operation was conducted under the auspices of the U.N. mission known as UNITAF.

SAFE BORDER (Mar 95 - Present)

U.S. participation in the six-nation Military Observer Mission to Ecuador-Peru in order to monitor the border against additional incursions by either country.

SAFE HAVEN (Sep 94 - Feb 95)

Joint effort to halt the flow of Cuba-to-U.S. migration by boat in order to flee economic and political problems in Castro's Cuba. Detention camps were set up at Guantanamo Bay and in Panama to handle the processing of the large number of refugees.

SAFE PASSAGE (Jan - Feb 95)

USAF/USA operation to transfer 7,300 Cubans to Guantanamo Bay from Panama who had been moved there under Operation Safe Haven. Government of Panama had ordered all Cubans removed by March 6th.

SEA ANGEL (May - Jun 91)

Humanitarian relief operations in Bangladesh by U.S. naval forces in the wake of devastating floods.

SEA SIGNAL (May 94 - Feb 96)

Joint Task Force 160 established to support Haitian and Cuban migrant operations in Guantanamo, Cuba. One phase involved the use of commercial merchant vessels for housing migrants instead of facilities at GITMO.

SHARP EDGE (May 90 - Jan 91)

Noncombatant evacuation operation from Monrovia, Liberia.

SHARP GUARD (Jun 92 - Sep 96)

An operation designed to enforce U.N. sanctions in the former Yugoslavia in conjunction with western European forces in theater. Sanctions were amended in November 1994 to exclude Bosnia.

SILVER ANVIL (May 92)

A USEUCOM Joint Special Operations Task Force conducted an evacuation of 438 people from Sierra Leone to Germany and Senegal following a coup that overthrew the government.

SILVER WAKE (Mar - Jun 97). Offshore monitoring by USN units of the deteriorating situation in Albania in early 1997 led to placement of additional USMC forces ashore at embassy. Noncombatant evacuation ops eventually became necessary as situation reached an unsafe level.

SNOW EAGLE (Feb 92)

Carried out with elements of Operation Provide Comfort combined task force, it was set up to deliver food, medicine and blankets to Kurdish refugees in southern Turkey after avalanches in the area. Evacuations of injured Kurds also took place.

SOUTHERN WATCH (Aug 92 - Present)

Coalition enforcement of the no-fly zone imposed on Iraq after the Persian Gulf War. Iraqis are not allowed to fly any military fixed-wing aircraft below the 32nd Parallel. USN carriers in the Gulf support this operation on an alternating day arrangement with USAF assets based in Saudi Arabia. The northern boundary of the no-fly zone was expanded southward after Operation Desert Strike.

SUPPORT DEMOCRACY (Oct 93 - Sept 94)

U.S. and allied maritime interception operations to enforce U.N. Security Council sanctions against Haiti's ruling military junta until civilian control of government in that country was restored.

SUPPORT HOPE (Jul - Oct 94)

Joint and combined humanitarian and evacuation operations in Rwanda overseen by USEUCOM during that country's ongoing civil war.

SUPPORT DEMOCRACY (Oct 93)

A UN-sponsored operation through the Security Council to place an embargo on certain Haitian goods and services (i.e. fuel, international banking, airline service) due to the ruling junta's refusal to abdicate. The U.S. led a multi-national force in enforcing the embargo.

SUSTAIN LIBERTY (Feb - Aug 97)

A six-month security mission to Panama conducted by 10th Mountain Division Military Police units.

TAIWAN CRISIS FLEXIBLE DETERRENT OPERATION (Mar - Apr 96)

Two U.S. carrier battle groups were sent to waters off Taiwan as a deterrent to Chinese threats against Taiwan when the latter country held elections. The Chinese fired missiles into the Taiwan Straits to demonstrate intolerance of the possibility of Taiwan declaring independence.

TWA 800 SALVAGE OPS (Jul - Nov 96)

USN/USCG salvage operations to locate and retrieve victims and aircraft material from a crashed airliner in Long Island Sound. Military units worked closely with the FAA and FBI investigators.

U.N. MISSION IN HAITI (UNMIH) (Apr 95 - Present)

U.N. sponsored joint and combined operation to continue providing civil assistance, economic, and democratic reforms to Haiti after the end of Operation Uphold Democracy.

U.N. OPERATIONS IN SOMALIA II (UNOSOM II) (May 93 - Mar 94)

The last phase of U.N. sponsored humanitarian operations in Somalia, it directed efforts to expand, consolidate, and maintain a secure environment for the advancement of humanitarian aid, economic assistance, and political reconciliation in that country.

UNITED SHIELD (Aug 94 - Mar 95)

The withdrawal of all UN Forces from Somalia by a US led Coalition Joint Task Force following the end of U.N. sponsored missions there.

UPHOLD DEMOCRACY (Sep 94 - Mar 95)

U.S. led multinational effort to remove the military dictatorship of Haiti and replace it with the previously elected President, Jean Bertrand Aristide, and then turn over the operation to U.N. control within six months for the purpose of seeing the country's orderly return to democratic principles.

VIGILANT SENTINEL (Aug 95 - Feb 97)

USN/USMC combat forces in Kuwait participated in a series of show of force activities designed to bolster U.S. resolve in the SW Asia region in the face of an Iraqi buildup of troops on its border with Kuwait, thereby deterring any potential Iraqi aggression.

VIGILANT WARRIOR (Oct - Dec 94)

Key forces & material were redeployed to the CENTCOM AOR to sustain defensive ops.

Part 3: Student Paper Examples

This section provides a selected list of quality papers and essays, written by students at the U.S. military colleges, to suggest the range of potential Operations Paper topics. Inclusion of a paper on this list does not imply that the paper was a JMO course product, nor that it necessarily meets JMO Paper criteria; its inclusion is intended as a possible area of inquiry. Those papers that originated at the Naval War College received grades of A- or better, and are available hard copy format in the NWC Classified Library. Also, these papers may be accessed in full-text format online at

<http://stinet.dtic.mil/str/tr_fields.html>

by inserting the author and title identifiers in the search boxes. When employing this tool, please be patient; it often requires five to ten minutes for the DTIC system to retrieve and display the paper in <dot pdf> format.

Allen, Bernal B. The Non-Linear Nature of Information and Its Implications for Advanced Technology Forces. Naval War College, Newport, RI, June 1998. N420F95 1998 # 99

Almonte, J.E. "Rapid Targeting Triad" Against the Mobile Threat: an Evolutionary Concept. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 1

Anderson, Joseph. Military Operational Measures of Effectiveness for Peacekeeping Operations. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 97

Araki, L.M.K. Self-Synchronization: What is it, how is it created, and is it needed? Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 3

Askins, S.W. The Black Box Conundrum of Network Centric Warfare. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 2

Barney, S.M. Innocent Packets? Applying Navigational Regimes from the Law of the Sea Convention by Analogy to the Realm of Cyberspace. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 3

Bauby, D. S. Maritime Homeland Command and Control: Teaching an Old Dog New Tricks. Naval War College: Newport, RI, June 2002, N 420 F95 2002 # 1

Beaver, M.A. Dealing With Information Overload: CCIR as Ockam's Razor in the Hands of the Joint Force Commander. Naval War College, Newport, RI, June 2001. N420F952001 #100

Beck, M. A. Thar Be Dragons: Plotting a Course From War Termination to Conflict Resolution. Naval War College: Newport, RI, June 2002, N 420 F95 2002 # 3

Berg, S.J. The Operational Impact of the U.S. Assassination Ban. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 5

Beutel, Debra A. A JTF in Support: How U.S. Forces Can Achieve Success by Influence. Naval War College: Newport, RI, June 2002. N 429 F98 2002 # 6

Blackburn, David F. Use of the United States National Fleet in Maritime Homeland Security and Defense. Naval War College, Newport, RI, June 2003. N 420 F95 2003 #87

Bobbin, Sarah E. Where's the Lift? Critical Operational Logistics Limitations on the Use of the Merchant Marine in Times of Crisis. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 103

Bolt, C. E. JFACC Split, Forward, & Afloat – Positioning for Success. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 6

Butts, W.S. Joint Military Ethics: A Framework for the Future. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 10

Chicky, Jon E. The Caspian Sea Region: A Look at Future U.S. and Allied Military Missions. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 12

Cooper, Deborah K. DOD Crime Fighters: Do the Right Rules Apply? Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 108

Cyr, Brian P. Foreign Denial & Deception: Minimizing the Impact to Operational Intelligence. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 85

Cudnahofsky, Aaron L. Space as an AOR: Is It the Right Solution? Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 13

Damiano, M. T. Employing Aerial Coercion to Combat Terrorism: Recommendations for the Theater CINC. Naval War College: Newport, RI, June 2002, N 420 F95 2002 # 20

Dana, Michael G. Shock and Awe: America's 21st Century Maginot Line. Naval War College, Newport, RI, June 2003. N 420 F95 2003 #99

Day, Michael H. Maritime Domain Awareness: A Modern Maginot Line? Naval War College, Newport, RI, March 2003. N 420 F962 2003 #15a

Day, Newell B. II. Network Centric Warfare and Joint Force Air Component Commander. Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 17

De Alicante, T. How Now Shall We Fight? The Relevance of the Law of Armed Conflict to the United States and its Coalition Members in Light of the Terrorist Attacks of 11 September 2001. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 23

DeLeon, J.A. Operational Planning Functions in an Information Age. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 21

Denney III, M. U.S.-NATO Command and Control: An *Ad Hoc* Relationship. Naval War College: Newport, RI, June 2002, N 420 F95 2002 # 24

Dobrot, L.A. Navy Space Operations in the 21st Century – Sailing Among the Stars. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 19

Dolan, K.J. Command & Control in the Information Age: Will Operational Command Echelons Become Unnecessary? Naval War College, Newport, RI, Mar 1999. N420F95 1999# 19

Donovan, Paul B. JMCC: Theater C2 in Need of Sole. Naval War College, Newport, RI, March 2003. N 420 F95 2003 #20

Doxey, C.A. Countering the Modern Conventional Submarine in the Littorals – Need for Joint Network Centric ASW. Naval War College, Newport, RI, March 2000. N420F95 2000# 20

Duffy, Patrick E. 21st Century Technology in Air Power: A Double-Edged Sword. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 114

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Eastwood, F.R. Zeroing In On the Culminating Point. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 23

Edgar, Jeffrey L. The Role of SOF in Information Warfare – Enablers, Not Cyber Warriors. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 116

Edwards, Jonathan P. The Development and Operational Impact of Indonesia's Approved Partial System of Archipelagic Sea Lanes. Naval War College, Newport, RI, June 1999. N 420 F95 1999 # 124

Fabian, Robert A. Force Protection in an Era of Commercially Available Satellite Imagery: Space Blockade as a Possible Solution. Naval War College, Newport, RI, June 2002, N 420 F95 2002 # 28

Fatheree, C.L. Intelligence Reachback Requires Analysts Forward. Naval War College, Newport, RI, March 2003.

Finehout, Arthur W. Integration of the Interagency Process in Theater Engagement Plans. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 118

Fisher, T. S. Civil Considerations & Operational Art: Polluting the Process or Method to the Madness? Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 31

Flick, G.J. How Can the Theater CINC Improve Peacetime Maritime Force Protection Against the Terrorist Threat ? Naval War College, Newport, RI, March 2001. N420F95 2001 # 28

Fuller, J.V. Information Overload and the Operational Commander. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 32

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Garraghty, Van W. Social Systems Analysis: The Future of Operational Intelligence? Naval War College, Newport, RI, June 2003. N 420 F95 2003 #166

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Gray Jr., J.L. Planning Information Operations to Enable Assured Access. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 32

Gureck, S.W. Network Centric Warfare and Complex Humanitarian Emergencies: Meet Napster ! Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 33

Hatch, G.W.H. Should the USN Contend the Narrower Littoral? Naval War College, Newport, RI, June 2003.

Henderson, M.D. Non-Lethal Weapons: Applications in Maritime Interdiction Operations. Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 33

Hermesmeyer, Gregory C. Organizing for Disaster: Improving U.S. Foreign Humanitarian Assistance Operations. Naval War College, Newport, RI, June 2002. N 420 F95 2002 # 39

Highland, Grant R. New Century, Old Problems: The Global Insurgency Within Islam and the Nature of the War on Terror. Naval War College, Newport, RI, March 2003. N 420 F95 2003 #34

Houser, Jonathan P. From Prowlers to UAVs: A Bridge Too Far for Airborne Electronic Warfare. Naval War College: Newport, RI, June 2002. N 429 F98 2002 # 8

Hyde, C.K. Casualty Aversion: Implications for Policy Makers and Senior Military Officers. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 45

Inbody, Donald S. Getting Past Guadalcanal: Joint Commander's Guide for the Control of Amphibious Forces. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 127

Jensen, W.J. Information Warfare's Missing Quarterback: The Case for a Joint Information Warfare Component Commander. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 43

Jones, R.E. Strategic Mobility and the WMD Threat. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 48

Kasupski III, B.W. The CNN Effect: A Direct Path to the American Center of Gravity. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 50

Kaufman, Randy L. Precision Guided Weapons: Panacea or Pitfall for the Joint Task Force Commander? Naval War College, Newport, RI, June 2003. N 420 F95 2003 #41

Kraft, J.E., Jr. U.S. Military Role in Countering the Biological and Chemical Warfare Threat: Attacking the Enemy's Will. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 46

Kramlinger, George D. Synchronizing Airpower & Other Operational Fires - The Joint Force Commander's Role. Naval War College, Newport, RI, June 2003. N 420 F95 2003 #123

Lawson, K.A. Synergy Now: Augmenting Carrier Air Operations with Strategic Aircraft. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 49

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McCue III, E.M. Targeting Enemy Leaders: Panacea or Pandora's Box ? Naval War College, Newport, RI, June 2001. N 420 F95 2001 # 131

McDonnell, John P. Apportion or Divert? The JFC's Dilemma: Asset Availability for Time-Sensitive Targeting. Naval War College, Newport, RI, March 2002. N 420 F95 2002 # 53

McLane, Brendan R. Reporting from the Sandstorm: Embedding - An Initial Appraisal. Naval War College, Newport, RI, March 2003. N 420 F962 2003 #50

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O'Leary, Thomas. The Foundation of Operational Art in the Naval Service. Naval War College, Newport, RI, June 1994. N 420 F95 1994 # 157

Packard, R.C. The Unconventional Warfare Threat to the Afloat Prepositioning Force – Or – How to Defeat a Marine Expeditionary Brigade If You Don't Have Any Tanks. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 69

Pellissier, Joseph B. Operational Art and the Submarine: Does the Enemy Understand It Better? Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 68

Quinn, T.W. RMAs, Network-Centric Warfare, and the Process of Transformation: Can We Get There From Here? Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 61

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Rodriguez, J.R. Breaking the Paradigm: Joint Targeting Coordination Board (JTCCB) for Future Military Operations. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 73

Salvi, M.A. Is There a Requirement for Joint Force Logistics Commander and Joint Theater Logistics Command ? Naval War College, Newport, RI, March 1999. N420F95 1999#64

San Martin, Juan C. Control of the Mediterranean Sea - A Key Issue in the Global War on Terror. Naval War College, Newport, RI, June 2003.

Scarborough, Sheila A. Nomadic Communications for the Joint Force Commander. Naval War College, Newport, RI, June 2000. N 420 F95 2000 # 149

Scherrer, Joseph H. Risks and Vulnerabilities of Network-Centric Forces: Insights From the Science of Complexity. Naval War College, Newport, RI, March 2003. N 420 F95 2003 #65

Schmitt, Paul S. Operational Command and Control: Integrating the Undersea Environment into Network Centric Warfare. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 149

Schonenberg, Lee W. Joint Economic Sanctions Enforcement Planning. Naval War College, Newport, RI, June 1999. N 420 F95 1999 # 162

Schorsch, Rusty A. Dominant Ground Maneuver at the Operational Level and the Value of Speed. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 150

Sirrs, Owen. Operational Art Can Neutralize the Asymmetric Small Boat Threat in Major Operations. Naval War College, Newport, RI, June 2002. N 420 F95 2002 # 66.

Sklenka, Stephen D. General George S. Patton: Operational Leadership Personified. Naval War College, Newport, RI, June 2002. N 420 F95 2002 # 67

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Smith, B.E. China's Maritime Claims in the South China Sea: the Threat to Regional Stability and U.S. Interests. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 79

Smith, J.L. Digital Deception: Implications of Pursuing Decision Superiority Using Deception in Cyberspace. Naval War College, Newport, RI, June 2001. N 420 F95 2001 # 145

Smits, T.V. The Law of Armed Conflict Limits the Implementation of Computer Network Warfare. Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 81

Souder, J.K. Space, Time, and Force: Relationships in Cyber-Space. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 81

Spannuth, K. The Most Likely Nemesis to Timely, Accurate Electronic Information. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 69

Steadley, R.S. Meteorology and Oceanography (METOC) Support and Network Center Warfare: Implications for the Joint Force Commander. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 79

Stephenson, Scott A. U.S. Space Command's Role in Computer Network Defense: 2020 Vision or Hack Job? Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 125

Stockwell, H.A. Beyond Sticky Foam: the Operational Use of Non-Lethal Technologies. Naval War College, Newport, RI, June 2001. N 420 F95 2001 # 150

Stoss III, F.B. To What Extent Do U.S. Nuclear Forces Provide Useful Options Against Rogue States with Weapons of Mass Destruction? Naval War College, Newport, RI, March 2000. N 420 F95 2000 # 84

Sullivan, David M. Transforming America's Military: Integrating Unconventional Ground Forces Into Combat Air Operations. Naval War College, Newport, RI, June 2002. N 420 F95 2002 # 72

Sutton, Michael D. The International Criminal Court: Considerations for the Joint Forces Commander. Naval War College, Newport, RI, March 2003. N 420 F95 2003 #157

Thompson, Brian L. Surrogate Armies: Redefining the Ground Force. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 74

Thompson, R.T., Jr. Moving Targets and Joint Missile Defense Doctrine. Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 80

Todorov, K.E. 2010 Staff Organization for Optimum C2: A Private Sector Analysis. Naval War College, Newport, RI, June 1998. N 420 F95 1998 # 87

Tranchemontagne, Marc. Terrorist Application of Operational Art. Naval War College: Newport, RI, June 2002. N 420 F95 2002 # 77

Turner, A.R. Time-Critical Targeting for the CINC. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 87

Vacca-Leboeuf, Janet M. The Bugs of War. Naval War College, Newport, RI, June 1999. N 420 F95 1999 # 171

Vaughn, Brett M. Operational Art and the Amphibious Assault: Will OMFTS Break the U.S. Amphibious Assault Sword? Naval War College, Newport, RI, June 2003. N 420 F95 2003 #76

Waters, D.E. Precision Naval Fires in the Age of Information Superiority: Is the Day of the Carrier Over? Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 86

Wells, David P. Managing the Double Edge Sword of Network Centric Warfare. Naval War College, Newport, RI, March 2003. N 420 F95 2003 #80

Woodcock, W.A. The JFACC in a Network Centric World. Naval War College, Newport, RI, March 2001. N 420 F95 2001 # 95

Wright, Beverly C. Information Warfare: Measures of Effectiveness. Naval War College, Newport, RI, June 1999. N 420 F95 1999 # 173

Young, Kristina A. The Operational Counter Deception Cell: Is It the Answer? Naval War College, Newport, RI, March 1999. N 420 F95 1999 # 90

Zonfrelli, M.A. Rapid Decisive Operations: A Flawed Concept. Naval War College, Newport, RI, June 2001. N 420 F95 2001 # 154

ENCLOSURE (3)

A QUICK GUIDE TO RESEARCH TOOLS

The most important factors for an effective start to the Operations Paper are a well-defined research question & thesis and a pragmatic research plan. Your moderators can help you with the former and provide tips on developing the latter. However, your knowledge of Naval War College research tools will minimize the frustration that often characterizes the “starting out” process.

The recommended point of departure is to aggregate and read the following:

NWC 2062P: *Operations Paper: Guidance for Students*. Newport, RI: Naval War College (JMO), February 2005.

Naval War College Writing Guide. Newport, RI: Naval War College, August 2000.

Naval War College Style Manual and Classification Guide. Newport, RI: Naval War College, August 2000.

Kate L. Turabian, *A Manual for Writers of Term Papers, Theses, and Dissertations*, 6th edition. Chicago: The University of Chicago Press, 1996. (Scan for content familiarization.)

The next step is to propose to your moderators a paper topic, research question, and thesis statement using NWC 2062, enclosure (1). Criteria for a suitable topic are contained in the JMO Syllabus. Potential topics are in NWC 2062 online, enclosure (2).

Once your topic is approved, firm up your research plan and start digging. The NWC Library has superb hard copy and electronic resources, and peerless / fearless reference librarians. If you have not done so previously, read *Research in the Library 2004-5* (issued to all arriving students) and take the Library tour. See also the JMO web site, Research Sites & Useful Links, <http://www.nwc.navy.mil/jmo/research/>.

The above suggestions will get you off to an excellent start. The remainder of this enclosure provides information on resources available in the NWC (Eccles) Library. Complete listings and associated access may be obtained by visiting the NWC Library home page, entered via the NWC web site. Good hunting....

ATTACHMENTS:

- *Citing Sources*
- Naval War College Library

Citing Sources

Courtesy of the Union Institute, www.tui.edu

Documenting Internet Sources

We *cite* the sources of information that we re-use in our writings to give credit to the original creator of an idea, quotation or illustration. We don't want others to assume we are the authors of original work done by someone else. However, we do want another reader to be able to read the original source if needed. A reader should be able to assume that anything not cited, if not common knowledge, is your original idea.

If you take information from a printed book, the data needed for a proper citation often are found on the front and back of the title page. In printed magazines and journals, information for a citation also can be found inside the periodical. The situation may be different, however, for pages published on the World Wide Web.

We find on the Internet a vast, virtual library of books, essays, articles, reports, and collections of assorted information. These resources can be browsed and borrowed easily. However, Internet documents are difficult to catalog. They are changed readily. Sometimes they disappear. A researcher may have a problem when a colleague can't verify a source cited in a research paper. Still, the information can be very useful. What is the proper way to cite a World Wide Web page, a gopher text, a Usenet posting, or an e-mail message? While the rules for citing Internet sources in academic works are in flux, there are some strategies to follow.

1. An Internet document may be authoritative, but it is a virtual source. Since it's not a hard copy, some will think it doesn't really exist. As a minimum, save all documents you cite as computer files in your own system. Where practical, print those documents to paper for future reference. Think of it as taking notes from a book or photocopying a magazine article. If your source were to be questioned, you could verify its authenticity.
2. If the Internet document is not original, but a copy of text published elsewhere, cite the primary printed source if you can locate it. Examples include the public-domain books at the Project Gutenberg gopher site (<gopher://locust.cic.net>), the statistical data at the U.S. Census web site (<http://www.census.gov>), and the television scripts at the Journal Graphics telnet site (menu item 67 at pac.carl.org). You may have to use your library or interlibrary loan to see the original source.
3. It's easy for anyone to publish anything on the Internet. That means you may find more information and fresher data, and people who share your interests for an exchange of ideas. However, not every source is reliable. Just as when doing a computer search of a real library's holdings, you must exercise judgment about what sources are authoritative and trustworthy. Gauge source reliability by comparing authors' claims and evidence. If there is any doubt, choose only articles that have a byline, i.e., have been signed by the author. An author's name may appear in an odd location so be sure to read the entire document. If

- necessary, ask the webmaster or the page master for the document in question, for the name of the author, or the source of the information. Explain what you plan to do with the information. Access to the webmaster's page usually can be found at the bottom of a web page or on a web site's home page.
4. Once you have an author's name, you can check his or her reputation by finding a biography or other documents he or she has written. Fortunately, many web documents offer e-mail links to authors or links to other works by an author. If appropriate, you could send an e-mail message to the author asking the whereabouts of the best version of an article.
 5. The important question is how to cite an Internet source, how to format a line item in a works-cited page at the end of a research paper, and how to list bibliographic references. Papers written at the Naval War College shall use the formats specified in the *Naval War College Style Manual and Classification Guide*, which is provided in hard copy to all faculty and students, and available online at <http://www.nwc.navy.mil/Academics/>.

How to find the publication date of a web page

Here's how to find the publication date of a web page (assumed from the Last Modified date on the web page). You may need this information when citing data found on the web.

Netscape You can see the date when using a Netscape browser by using the View menu and selecting Page Info. If you don't have Netscape available, please note that it is available free for downloading from the Netscape home page. At www.netscape.com select Download, which is a very small word at the top center of the page.

Internet Explorer Using the MS Internet Explorer browser, use the File menu and select Properties. For some reason, the Internet Explorer display of Properties sometimes doesn't have the date available even when one knows it is there. In that case, switch to a Netscape browser and see the Page Info as described above.

Universal Time Here's what some data on the Page Info display looks like when using a Netscape browser. Note that the Last Modified date is shown in local time and in universal time (GMT).

Location: <http://www.spacetoday.org/DeepSpace/Stars/BlackHoles/BurpsAsteroid.html>
File MIME Type: text/html
Source: Currently in disk cache
Local cache file: MUD4AH.EE.HTM
Last Modified: Wednesday, December 29, 1999 2:54:50 PM Local time
Last Modified: Wednesday, December 29, 1999 7:54:50 PM GMT

Naval War College Library

Open daily: 0600 - 2300. Staffed: 0730 - 1630 Monday - Friday (except federal holidays)
Online information concerning services is available at

<http://www.nwc.navy.mil/library/3Publications/NWCLibraryPublications/Newsletters/LibraryNewsletter.htm>.

To access the online databases from any PC in the NWC complex:

Click **Databases** icon if shown on the PC desktop or go to the NWC Library homepage, <<http://www.nwc.navy.mil/library>>, select **Resources and Databases; Indexes and Databases**.

Some of the More Popular Databases Are:

Bibliography of Asian Studies (BAS)

Citations to western-language monographs, articles, and book chapters on Asia published since 1971.

CIS Congressional Universe: Recent House and Senate documents

Columbia International Affairs Online (CIAO)

Working papers, briefs, proceedings, book & journal abstracts, economic indicators, and country data.

Digital National Security Archive

Primary source declassified documents are contained in twelve complete subject-based collections.

First Search (see reference librarian for username and password)

About 80 separate databases on a wide range of topics; each database has a different focus.

Global Information System (see reference librarian for username and password)

Political, economic, defense, & intelligence data and an index to *Defense & Foreign Affairs Daily*.

Jane's Online

Searches all titles in Defense Magazine Library; Geopolitical Library; Market Intelligence Library; Transport Library.

Lexis-Nexis Academic Universe

Full text access to newspaper and magazine articles and business, legal, and reference information.

MERLN (Military Education and Research Library Network)

Online catalogs to other US military libraries, indexes to military periodicals, & bibliographies on military topics.

Periscope: U.S. Naval Institute Military Database

Includes the force structure and weapons systems of armed forces world-wide.

Proquest Direct

Periodical and newspaper index to c. 2,000 titles: news, politics, government & the social sciences.

StratFor

World-wide strategic forecasting & intelligence with emphasis on geopolitics, geo-economics, and geo-security.

Library Resources

- Access to 20+ subscription databases
- A collection of over 200,000 books, journals, and documents in print format, and a substantial collection of materials in microform including microcards, microfiche, and microfilm (6 new reader/printers)
- 2 scanners (1 b&w; 1 color), 3 laser printers (1 color), 2 photocopiers
- 1 TV with VCR
- 21 Internet accessible PCs (includes 8 PCs in multi-media room equipped with Microsoft Word)

Interlibrary Loan

To request books or articles not found in the NWC Library or accessible via electronic media, simply fill out a blue request form at the Reference Desk. Turn-around time is approximately 2 weeks. Plan accordingly!

Classified Library

- 4 PCs to access the Classified Library's online catalog holdings.
- 6 SIPRNET PCs
- Almost 300 documents on CD-ROM
- JMO, Advanced Research, and NSDM papers
- S&P lectures, guest lectures, and conference lectures on audio cassette
- DTIC database on CD-ROM
- Navy Lessons Learned Database (includes JULLS & individual services' Lessons Learned modules)

Naval War College Archives

The **Naval Historical Collection**, the College's archives and manuscript depository, recently acquired the papers of Rear Admiral Samuel B. Frankel, USN (Ret.) who was naval attaché in Archangel and Murmansk, USSR, during World War II. The collection contains biographical information; naval orders, 1929-1964; correspondence, both letters sent and received from Russia, 1941-1944; writings, including articles on the convoy to Murmansk and a wartime report of the Royal Naval attaché in Russia; career photographs; and newspapers clippings, invitations, certificates, and citations.

BIBLIOGRAPHIES

In addition to providing research resource access and links, some military libraries also develop bibliographies for specific topical areas. For example, the Naval Postgraduate School Monterey recently developed bibliographies on “Sea Mines & Countermeasures in the 20th Century,” and “Information Warfare & Information Operations (IW / IO),” <http://web.nps.navy.mil/~library/bibs>.

The following are bibliographies on topics of current concern prepared by the Reference Librarians at the Naval War College. Each bibliography includes citations to books, documents, and periodical articles that are held by the Eccles Library, and may contain associated Internet resources.

Nation-Building (9/04) (Barbara R. Donnelly)

The Russian States and Oil Strategy (8/04) (Doris Ottaviano)

Maritime Blockade (5/04) (Alice K. Juda)

Asymmetric Warfare (4/04) (Barbara R. Donnelly)

Modern Maritime Piracy (2/04) (Doris Ottaviano)

Afghanistan: A Selected Bibliography (1/04) (Julie L. Zecher)

War Termination and Exit Strategy: an Updated Bibliography (11/03) (Doris Ottaviano)

Contractors on the Battlefield (10/03) (Alice K. Juda)

Port Security (8/03) (Alice K. Juda)

NATO Enlargement and European Security (5/03) (Doris B. Ottaviano)

North Korea: a Selected Bibliography on Nuclear Instability (4/03) (Julie L. Zecher)

Joint Operations - a Selected Bibliography (3/03) (Barbara R. Donnelly)

Political Islam: an Updated Selected Bibliography (2/03) (Doris B. Ottaviano)

Naval Doctrine and Operational Concepts (12/02) (Alice K. Juda)

Deception (11/02) (Barbara R. Donnelly)

Ethical Dimensions of the Terror War (10/02) (Alice K. Juda)

International Criminal Court (10/02) (Doris B. Ottaviano)

Homeland Security 2002 (9/02) (Julie L. Zecher)

Operational Law (7/02) (Alice K. Juda)

Network-Centric Warfare: a 2002 Update (7/02) (Doris B. Ottaviano)

Declassified Information and Access to Public Documents (6/02) (Alice K. Juda)

Water Conflict (5/02) (Julie L. Zecher)

Chemical and Biological Warfare (4/02) (Doris B. Ottaviano)

Landmines (3/02) (Barbara R. Donnelly)

Posse Comitatus (2/02) (Alice K. Juda)

Relevant Issues in Homeland Defense: An Update (4/02) (Julie L. Zecher)

Political Islam: a Selected Bibliography (10/01) (Doris B. Ottaviano)

Child Soldiers (9/01) (Alice K. Juda)

The Crisis in Kosovo: Human Rights and Military Intervention (8/01) (Julie L. Zecher)

Network-Centric Warfare: An Update (7/01) (Doris B. Ottaviano)

United States - Cuba Relations (3/01) (Alice K. Juda)

Research Grants and Proposals (2/01) (Doris B. Ottaviano)

Homeland Defense & Domestic Terrorism (10/00) (Julie L. Zecher)

Taiwan-China Relations: a Selected Bibliography (8/00) (Doris B. Ottaviano)

Urban Warfare (4/00) (Alice K. Juda)

Strategic Change, Transformation, and Military Innovation (3/00) (Alice K. Juda)

Global Political Economy (1/00) (Doris B. Ottaviano)

War Termination and Exit Strategy (10/99) (Alice K. Juda)

Electronic Citation Update (9/99) (Julie L. Zecher)

Note: Air University Library has recently added bibliographies related to Homeland Security and Terrorism. A complete list of all AULI bibliographies resides at

<http://www.au.af.mil/au/aul/bibs/bib97.htm>

ENCLOSURE (4)

PROFESSIONAL WRITING AND RESEARCH AWARDS

A variety of prestigious awards are available for Naval War College student competition during each academic year. Although these awards are, for the most part, presented during June commencement ceremonies, it is important to note that November and March “phased input” students are equally eligible with August-arrival students for such recognition. The following paragraphs provide a brief summary of the awards program.

1. PRIZES AND AWARDS.

Chairman, Joint Chiefs of Staff, Essay Competition. The National Defense University hosts the annual Chairman, Joint Chiefs of Staff Strategy Essay Competition. Through this award, students at the Service Colleges are challenged to write about a significant aspect of national security strategy. The winner receives a plaque and various publications by the NDU Press. The Chairman, JCS, presents the award at a ceremony in his office. Detailed information on this competition is provided to NWC students in March each year. For planning purposes: competition deadlines usually require that entries be submitted no later than 1 May to the NWC Provost office (Mr. Menard, C-225); essays up to 6,600 words text (26-27 pages) in length are acceptable, but the most welcome size is 4,000 - 5,000 words.

Admiral Richard G. Colbert Memorial Prize: for the essay focusing on an economic, military, political, strategic, operational, or tactical aspect of an appropriate professional topic.

J. William Middendorf II Award for Student Research: awarded to a student or group of students whose research project is considered to have made the most significant contribution in a field related to strategic or tactical concepts, logistics, or readiness.

Naval War College Foundation Award: for the essay considered to have made the most significant contribution to some aspect of maritime strategy or the operational level of warfare. This prize encourages original thinking on subjects related to maritime strategy, and the operational or strategic issues in maritime theaters of operations; joint and combined operational or strategic considerations; historical insights from naval, land, and air campaigns that can be applied to current strategic or operational issues.

B. Franklin Reinauer II Defense Economics Prize: for the best essay that addresses an aspect of the impact of the Defense budget on the U.S. economy. Students who wish to participate in this prize must choose a topic relating national defense with some economic issue or problem. Examples of topics include: (1) defense expenditure impacts on the national economy; (2) the relationship of economics to defense; (3) international economic issues and their relationship to national security.

Armed Forces Communications and Electronics Association Award (AFCEA). Competition for this award is open to all resident students of the College of Naval Warfare and the College of Naval Command and Staff for papers prepared as part of the academic requirements of their Joint Military Operations (JMO) trimester. Within the scope of acceptable topics for the JMO paper, the AFCEA award will recognize the two papers considered to be the best of the eligible papers, one from each of two general topic areas: (1) Information Operations, Information Warfare, or Command and Control Warfare (IO/IW/C2W); (2) all other topics related to communications, electronics, command and control, and information systems. The latter area may include, but is not limited to, those professionally worthy joint, combined, and Service-related topics addressing avionics, command and control, computers, telecommunications, electronics, radar, satellites, and intelligence systems.

Marine Corps Association Award: for the best essay on a topic relating to the Marine Corps or Marine Corps operations.

Naval Submarine League Prize: sponsored by the Naval Submarine League, this award recognizes the best essay or research paper related to submarine warfare by a resident student at the Naval War College.

The Robert E. Bateman International Prize. International students attending the Naval Command College are eligible to compete for this prize during their year of residence. The essay should focus on original thinking about force planning, or current operational or strategic issues of maritime interest, which could include, among other ideas: (1) concepts for the improved execution of some military task or mission, (2) concepts for the use of military forces--unilaterally, bilaterally, or regionally, or (3) historical insights from maritime campaigns which can be applied to current strategies or operations.

Intelligence Directors' Essay Awards. The **Director of Naval Intelligence (DNI) award** recognizes that professional essay considered to have made the most significant contribution to an aspect of naval or maritime intelligence. The **Director of the Defense Intelligence Agency (DIA) award** recognizes that professional essay considered to have made the most significant contribution to an aspect of joint or national intelligence. The **Naval Intelligence Foundation's Admiral Ike Kidd Award** recognizes that student who demonstrates the highest level of professionalism in naval intelligence, which can include authoring an essay on an intelligence-related topic. Acceptable topics for these awards include all areas of naval and maritime intelligence, counterintelligence and security, as well as intelligence-related command and control, training, and operations.

Red River Valley Fighter Pilots Association Award. Sponsored by the Red River Valley Fighter Pilots Association, this award recognizes that essay considered to be the best of the eligible papers addressing joint employment of air power in support of the national military strategy. Competition for this award is open to resident students of the Colleges of Naval Warfare and Naval Command & Staff.

VADM James H. Doyle, Jr., Military Operations and International Law Prizes. This award recognizes the best professional essay submitted by a U.S. student and the best submitted by an international student (in separate competition within those two student categories) considered to have made the most significant contribution on the role of international law in military operations during peacetime or armed conflict. The general and comprehensive field of international law and military operations is intended to cover all aspects of the role international law plays in military operations. This includes planning, mobility, control of the transition from peacetime operations to armed conflict, and the developing role of international law in operations under international auspices, such as peacekeeping. Issues pertaining to the law of the sea (including freedom of navigation and overflight, military uses of the seas and air spaces above, maritime law enforcement, and resource and environmental considerations), the law of armed conflict, and rules of engagement fall within this definition.

Jerome E. Levy Economic Geography and World Order Prize. This award offers a \$1000 cash prize for the best research product that fundamentally addresses and proposes potential solutions in the disciplines of economic geography and national / international security.

Military Officers Association of America (MOAA) Prize. Sponsored by the MOAA, this prize is awarded to one student from the College of Naval Warfare and one student from the College of Naval Command & Staff for the paper that is considered to have made most significant contribution to the study, implementation, and spirit of joint-service warfare.

Cold War Prize Competition. The *John A. Adams Center* at the Virginia Military Institute awards prizes for the best papers dealing with the U.S. military in the Cold War, 1945-1991. Any Cold War aspect is open for consideration, with papers on intelligence, logistics, and mobilization especially welcome. Two sets of prizes are offered, one set for pay grade O-5 officers and one for pay grade O-4.

Surface Navy Association. The SNA presents an award to one student in the College of Naval Warfare and one in the College of Naval Command & Staff for the best papers on operational employment of naval surface forces.

2. **COMPOSITION OF PRIZES.** A \$1,000 cash prize and a certificate will be presented to the author of the best professionally worthy essay or paper from the Colbert, Middendorf, and Naval War College Foundation Awards, and the Naval Submarine League, the Reinauer, the Levy, MOAA, and the Bateman International Prize competitions. Authors of the most professionally worthy essays from the VADM James H. Doyle, Jr., Military Operations and International Law Prizes, and the Marine Corps Association Award competitions will receive a \$500 cash prize and a certificate. Authors of the best professionally worthy essays from the Director of Naval Intelligence (DNI) Essay Award, the Director of the Defense Intelligence Agency (DIA) Essay Award, and the Red River Valley Fighter Pilots Association Award competitions will receive suitably

inscribed plaques or certificates. The recipients of the AFCEA Awards will each receive an inscribed certificate and a table clock with an engraved brass nameplate. Entries not receiving top honors but considered to have exceptional merit will, upon recommendation to the President, Naval War College, by the prize essay committee, be awarded "honorable mention." The Cold War Prize comprises plaques and cash awards.

3. **ELIGIBILITY.** Unless specified otherwise in a prize category description above, students in the College of Naval Warfare (CNW), College of Naval Command and Staff (CNC&S), Naval Command College (NCC), and Naval Staff College (NSC) are eligible to participate. CNW/CNC&S November and March graduates have the opportunity to participate in two award cycles but can compete for an individual award only once during their academic year. Papers submitted for award competition may be the result of extracurricular effort or the product of written requirements of the student's academic program. With the exception of entries from Fleet Seminar students, papers must be prepared during the academic year of residence. **A student may compete for more than one award but may not enter the same paper in more than one competition** listed above. However, if the paper is submitted for the Marine Corps Association Award, the same paper may compete in another "subject-related" competition listed above.

4. **APPLICATION PROCEDURES.** As a general rule, submission deadlines fall into the late-April to mid-May timeframe, although there are some exceptions. The NWC Awards Program, including application format, is detailed in Provost Memorandum, Subj: *Professional Writing and Research Awards Program for Academic Year 200X-Y*, published each fall and distributed to all faculty and students. Specific questions concerning awards and applications may be addressed to Mr. Rick Menard in the Office of the Provost (C-225) at commercial 401-841-3589, or DSN 948-3589. College of Distance Education students may notify Mr. Menard of their intention to enter the competition at <menardr@nwc.navy.mil>.

5. **AWARD-WINNING PAPERS.** The list of the previous year's winners is available at <http://nwcintranet/PrizeWinningEssays/ProfessionalWritingResearchAY03-04.pdf>.

ENCLOSURE (5)

JOURNALS AND PUBLICATIONS

There are many professional journals and publications that welcome (and often solicit) papers written by Naval War College students. Each has its own rules for the content, length, format, etc. of papers accepted for publication consideration; thus it is necessary to contact directly the journal or publication to determine the specific requirements. As a general rule, editors decide whether to publish a paper based on critical reviews conducted by editorial boards of three or more persons, often experts in the topic; board members conduct their reviews independently and without knowledge of the author's identity. The following lists those publications in which Naval War College students and graduates have been published in recent years. There are also many more publications that are or might be amenable to publishing NWC student work. If you desire to submit a paper for publication, visit the periodicals section of the NWC Library and find the periodical of interest. Its publication policy, web site, digital and mail addresses, and telephone number are usually contained within the first few pages or end pages.

Air Force Journal of Logistics

The Air Land Sea Bulletin

Airpower Journal (APJ)

Amphibious Warfare Review

Army Logistician

Joint Force Quarterly

Leatherneck Magazine

Marine Corps Gazette

National Guard

Naval Aviation News

Naval History

Naval War College Review

Parameters (U.S. Army War College)

Seapower Magazine (Navy League of the United States)

Small Wars Journal

Special Warfare

Strategic Review

The Submarine Review

Surface Warfare Magazine

Undersea Warfare: The Official Magazine of the U.S. Submarine Force

U.S. Naval Institute Proceedings